

# **Exhibit 5**

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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DELTA AIR LINES, INC., FRONTIER AIRLINES, INC., UNITED  
AIRLINES, INC., US AIRWAYS, INC., AND AMERICAN AIRLINES,  
INC.

Petitioners

v.

LOYALTY CONVERSION SYSTEMS CORPORATION

Patent Owner

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Case CBM: CBM2014-00096

Patent 8,511,550

April 1, 2014

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**CORRECTED PETITION FOR COVERED BUSINESS METHOD PATENT  
REVIEW OF U.S. PATENT NO. 8,511,550 UNDER 35 U.S.C. § 321 AND § 18 OF  
THE LEAHY-SMITH AMERICA INVENTS ACT**

Before GRACE MEDLEY, *Administrative Patent Judge*

**Mail Stop: Patent Board**

Patent Trial and Appeal Board

U.S. Patent and Trademark Office

P.O. Box 1450

Alexandria, VA 22313-1450

## **LIST OF EXHIBITS<sup>1</sup>**

Corrected Exhibit 1001:	U.S. Patent No. 8,511,550
Corrected Exhibit 1002:	U.S. Patent No. 3,083,906
Corrected Exhibit 1003:	U.S. Patent No. 3,795,795
Corrected Exhibit 1004:	U.S. Pat. Appl. Pub. No. 2003/0200144 to Antonucci et al.
Corrected Exhibit 1005:	U.S. Pat. Appl. Pub. No. 2002/0143614 to Maclean et al.
Corrected Exhibit 1006:	U.S. Patent No. 8,297,502
Corrected Exhibit 1007:	U.S. Patent No. 7,703,673
Corrected Exhibit 1008:	Patent File History for U.S. Patent No. 7,703,673
Corrected Exhibit 1009:	Declaration of Sandeep Chatterjee
Corrected Exhibit 1010:	Patent File History for U.S. Patent No. 8,511,550
Corrected Exhibit 1011:	Transitional Program for Covered Business Method Patents—Definitions of Covered Business Method Patent and Technological Invention, 77 Fed. Reg. 157 (August 14, 2012)

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<sup>1</sup> In response to the Notice of Filing Date Accorded to Petition dated April 1, 2014, and as advised by Trial Paralegal Althea Wilburn, Corrected Exhibits have been filed concurrently herewith including labels identifying the first-named Petitioner, Delta Air Lines, Inc.

- Corrected Exhibit 1012: *Loyalty Conversion Systems Corp. v. US Airways*, 2:13-cv-00666, Complaint
- Corrected Exhibit 1013: Office Patent Trial Practice Guide, 77 Fed. Reg. 157 (August 14, 2012)
- Corrected Exhibit 1014: *Loyalty Conversion Systems Corp. v. Delta Airlines*, 2:13-cv-00659, Complaint
- Corrected Exhibit 1015: *Loyalty Conversion Systems Corp. v. United Airlines*, 2:13-cv-00665, Complaint
- Corrected Exhibit 1016: *Loyalty Conversion Systems Corp. v. Frontier Airlines*, 2:13-cv-00660, Complaint
- Corrected Exhibit 1017: *Loyalty Conversion Systems Corp. v. American Airlines*, 2:13-cv-00655, Complaint

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## **I. INTRODUCTION AND STATEMENT OF RELIEF REQUESTED (37 C.F.R. § 42.22(a))**

In response to the Notice of Filing Date Accorded to Petition dated April 1, 2014 and pursuant to 35 U.S.C. § 321 and § 18 of the Leahy-Smith America Invents Act (“AIA”) and pursuant to 37 C.F.R. § 42.300 *et seq.*, Delta Air Lines, Inc. (“Delta”), Frontier Airlines, Inc. (“Frontier”)<sup>2</sup>, United Airlines, Inc. (“United”), US Airways, Inc. (US Airways), and American Airlines, Inc. (“American”) (collectively, “Petitioners”) hereby request post-grant review of claims 1-3 and 5-7 of U.S. Patent No. 8,511,550 (“the ’550 Patent,” attached as Corrected Exhibit 1001), now purportedly assigned to Loyalty Conversion Systems Corporation (“LCSC”).

## **II. PRELIMINARY STATEMENT**

The ’550 Patent is directed to nothing more than the abstract and well-known concept of currency conversion. *See* Ex. <sup>3</sup> 1001 at 2:53-60 and Fig. 2 (showing 100 entertainment rewarded to \$100); *see also* Ex. 1002 and Ex. 1003 (showing a 1963 and a 1974 slide-rule used for currency conversion). No novel hardware or software for implementation of this currency conversion is disclosed in the ’550 Patent. Indeed, the ’550 patent acknowledges that only a simple calculation is

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<sup>2</sup>Indigo Partners LLC acquired Frontier Airlines on or about December 3, 2013.

<sup>3</sup> All references to “Ex.” are to Corrected Exhibits being filed concurrently herewith.

required to convert currency, and that such a conversion can be performed by using nothing more than a general purpose computer and a general computer program written in any expression or any language. For example, the '550 Patent explicitly states that “[a]ny kind of computer system or other apparatus adapted for carrying out the methods described herein is suited . . . [such that a] typical combination of hardware and software *may be a general purpose computer system with a computer program.*” Ex. 1001 at 6:18-24 (emphases added).

In addition to describing the abstract concept of currency conversion with a general purpose computer, the '550 Patent also contemplates that the claimed methods can be implemented by a human being. *See id.* at 3:64-67 (“the methods detailed herein can also be methods performed at least in part by *a service agent* and/or a machine manipulated by a *service agent*,” (emphases added)). Such simple calculations that can be performed by human beings, without the use of any inventive, special-purpose hardware or software, are as a matter of law unpatentable abstract ideas. *See, e.g., Bilski v. Kappos*, 130 S. Ct. 3218, 3230 (2010); *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289, 1294 (2012).

The claims of the '550 Patent simply reiterate the abstract concepts described in the specification. For instance claims 1-3 and 5-7 of the '550 Patent (“the '550 Patent Claims”) are directed to “a conversion option to convert at least a

subset of the shown non-negotiable credits into a quantity [of] entity independent funds,” where “non-negotiable credits” are loyalty points of a loyalty program and the entity independent funds are negotiable funds that are a “monetary equivalent” of the non-negotiable credits. Ex. 1001 at 4:45-47 and Fig. 2. For these reasons, and as more fully set forth below, the ’550 Patent Claims are invalid under at least 35 U.S.C. § 101. *Infra* at § VII.A.

The ’550 Patent is also invalid as being anticipated and/or rendered obvious by several prior art references. During prosecution, the Patent Owner submitted Information Disclosure Statements that included over 100 pages listing over 1,100 pieces of prior art. Yet the ’550 Patent issued a mere 4 months and 4 days after filing. Loyalty reward programs have been in existence for decades. And the ability to convert a form of currency, in particular of loyalty points, has been in existence since well before the ’550 Patent was filed. For instance, U.S. Pat. Appl. Pub. No. 2003/0200144 to Antonucci et al. (Ex. 1004) specifically describes the exact process the ’550 Patent claims as inventive. Ex. 1004, ¶ [0157] (emphases added) (“...if a consumer desires to transfer *five hundred Hilton Reward points to a United Airlines frequent flyer account*, the conversion engine may determine that the five hundred Hilton Rewards points only translate into one hundred United Airlines frequent flyer points.”).

Similarly, U.S. Pat. Appl. Pub. No. 2002/0143614 to MacLean et al. (Ex. 1005) discloses a web-based system to “convert points of one LP [loyalty program] into points issued by a different LP [loyalty program].” Ex. 1005, ¶ [0017]; *see also* Figs. 6A-I. Thus, a review of *MacLean* and *Antonucci* by one of ordinary skill in the art plainly reveals that the ’550 Patent Claims, in addition to claiming non-patentable subject matter under Section 101, are also invalid under 35 U.S.C. §§ 102 and 103. *Infra* at § VII.B and C.

The ’550 Patent Claims also fail to satisfy the requirements of 35 U.S.C. § 112, because they fail to adequately describe or set out the definition of the “commerce partner” that manages a loyalty program and receives compensation in exchange for providing loyalty points for conversion from loyalty points of an entity. This is clear when looking at the ’550 Patent, which is a continuation-in-part of application Nos. 13/681,479 and 13/681,493, a continuation of U.S. Patent No. 8,297,502 (Corrected Exhibit 1006, “the ’502 Patent”), and a continuation of U.S. Patent No. 7,703,673 (Corrected Exhibit 1007) and was filed nearly 7 years after its parent (“the ’673 Parent Patent”). The specifications of the ’673 Parent Patent and the ’550 Patent are nearly identical. However, neither discloses a “commerce partner.” Moreover, the ’550 Patent Claims include terms that were stripped out of the ’673 Patent claims in light of Examiner rejections. Specifically, during prosecution of the ’673 Parent Patent, applicants amended the claims to replace



“non-negotiable credits” with “entertainment credits” to overcome a prior art rejection. *See e.g.*, Corrected Exhibit 1008, Amendment Aug. 12, 2009. Applicants, however, re-introduced “non-negotiable credits” on June 25, 2012, when the application that led to the ’502 Patent was filed. This term was then also carried forward into the claims of the ’550 Patent. For these reasons as well, the ’550 Patent Claims are invalid under 35 U.S.C. § 112. *Infra* at § VII.D.

### **III. MANDATORY NOTICES INTRODUCTION AND STATEMENT OF RELIEF REQUESTED (37 C.F.R. § 42.22(a))**

#### **A. Real Party-In-Interest**

The real parties-in-interest are Delta Air Lines, Inc., Frontier Airlines, Inc., United Airlines, Inc., US Airways, Inc., and American Airlines, Inc.. Indigo Partners, LLC is also a real party-in-interest by virtue of its ownership of Frontier.

#### **B. Related Matters**

The ’550 Patent is presently the subject of litigation in the United States District Court for the Eastern District of Texas, in the following cases which may affect or be affected by a decision in this proceeding:

<b>Plaintiff</b>	<b>Defendants</b>	<b>Case No.</b>
	American Airlines, Inc.	2:13-cv-00655
	Delta Air Lines, Inc.	2:13-cv-00659
	Frontier Airlines, Inc.	2:13-cv-00660

Loyalty Conversion Systems Corp.	Hawaiian Airlines, Inc	2:13-cv-00661
	Jetblue Airways Corp	2:13-cv-00662
	Southwest Airlines Co	2:13-cv-00663
	Spirit Airlines, Inc	2:13-cv-00664
	United Airlines, Inc	2:13-cv-00665
	US Airways, Inc.	2:13-cv-00666

Concurrently herewith, Petitioners are also filing a petition for Covered Business Method Patent Review directed to U.S. Patent No. 8,313,023 that also seeks prior from the 673 Parent Patent and is also at issue in the above-listed litigations in the Eastern District of Texas.

**C. Lead and Back-Up Counsel and Service Information**

In accordance with 37 C.F.R. §§ 42.8(b)(3) and 42.8(b)(4), Petitioners *American, Delta, Frontier, United, and US Airways*, identify Saqib Siddiqui as lead counsel and Stephen E. Baskin as back-up counsel, and identifies the following service information:

<b>Lead Counsel and Service Info.</b>	<b>Backup Counsel</b>
Saqib J. Siddiqui (Reg. No. 68,626)	Stephen E. Baskin ( <i>pro hac vice</i> motion requested)
Mayer Brown, LLP 1999 K Street, N.W. Washington, D.C. 20006-1101 Telephone: (202) 263-3167	Mayer Brown, LLP 1999 K Street, N.W. Washington, D.C. 20006-1101 Telephone: (202) 263-3364

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Pursuant to 37 C.F.R. § 42.10(c) and to the authorization provided in the Notice of Filing Date Accorded to Petition dated April 1, 2014, Petitioners intend to file a motion for Stephen E. Baskin to appear before the USPTO *pro hac vice* under 37 C.F.R. § 42.10. Pursuant to 37 C.F.R. § 42.10(b), a power of attorney was previously filed on March 17, 2014.

#### **IV. OVERVIEW OF THE '550 PATENT AND ITS PROSECUTION HISTORY**

##### **A. Specification**

The '550 Patent relates to converting “non-negotiable credits provided by an entity to negotiable funds.” Ex. 1001 at 2:53-55; Declaration of Dr. Sandeep Chatterjee (“Ex. 1009”), ¶ 19. The “conversion can occur automatically using a Web initiated action” whereby 100 “Entertainment Rewards” are converted into “\$100.” Ex. 1001 at 2:61-62 and Fig. 2; Ex. 1009, ¶ 19. The “non-negotiable credits” are described as credits, such as “frequent flier miles, consumer loyalty points, and entertainment credits” that cannot be negotiated for goods or services with any entity other than the entity issuing them to a consumer. Ex. 1001 at 1:40-57; Ex. 1009, ¶ 19. “Negotiable funds” (also described as entity independent funds) are described as a monetary amount (*e.g.*, monetary currency) that can be

negotiated for goods and services and are independent of any relationship to an entity. Ex. 1001 at 5:23-34, Figure 2; Ex. 1009, ¶ 19.

As shown in Fig. 1 of the '550 Patent, the disclosed “entity independent funds system” includes a client 110, which “can be any of a variety of interfaces including, but not limited to, another *human being*, a personal computer . . . , a mobile phone, and the like.” Ex. 1001 at 3:64 to 4:12 (emphasis added); Ex. 1009, ¶ 20. The '550 Patent does not provide any detail regarding the hardware or structure of servers 120, 130, 140, and 150 other than the fact that they are part of a general purpose computer. Ex. 1009, ¶ 20. The '550 Patent specifically states that “[a]ny kind of computer system” including a “general purpose computer system” can be used to implement such components. Ex. 1001 at 6:18-24; Ex. 1009, ¶ 21.

With respect to the process of converting non-negotiable credits to negotiable funds, the '550 Patent merely states that the consumer can use a “conversion agency” to convert earned loyalty points into their “monetary equivalent.” Ex. 1001 at 4:30-47. The '550 Patent does not disclose how the conversion takes place, or how the conversion agency is implemented. It merely states that the “conversion agency can be an independent entity that is not directly affiliated with the credit providing entities.” *Id.* at 2:58-60.

As stated previously, conversion of one form of currency to another has been around for years and is not a novel concept. *See, e.g.*, Ex. 1005; Ex. 1004; and Ex.

1009, ¶ 36. Tellingly, the patent itself does not state that the mechanisms by which its claimed conversion takes place are novel. To the contrary, the patent discloses that the methods can be performed by a human being with the assistance of only a general purpose computer. Ex. 1001 at 3:64-67 and 6:18-20 (the disclosed methods can be “performed at least in part by a service agent” and/or “[a]ny kind of computer system or other apparatus adapted for carrying out the methods described herein is suited”); Ex. 1009, ¶ 36.

While the computer system disclosed includes servers, it is limited to basic distributed computer concepts well known in the art. *See e.g.*, Ex. 1005, Fig. 2; Ex. 1004, Fig. 9; Ex. 1009, ¶ 22. Moreover, the ’550 Patent acknowledges that a special-purpose computer is not required to practice the claimed subject matter. Ex. 1001 at 6:20-24 (“[a] typical combination of hardware and software may be a general purpose computer system with a computer program”); Ex. 1009, ¶¶ 21, 37, 39.

Further, nothing more than a general purpose computer is needed because currency conversion is a simple calculation that can be performed by using a pen and paper, or alternatively, a manual calculator or a slide rule. Ex. 1001 at 3:64-67; *see also* Ex. 1002 and Ex. 1003 (showing a 1963 and a 1974 slide-rule used for currency conversion); Ex. 1009, ¶ 49. For example, the ’550 Patent discloses

converting 100 entertainment reward points into \$100 by using a 1:1 ratio. Ex. 1001 at 5:18-52, Fig. 2; Ex. 1009, ¶ 19.

This claimed “conversion,” as disclosed, is nothing more than the simple application of a mathematical ratio to determine the amount of currency that should be exchanged for a number of credits or loyalty points. Ex. 1009, ¶¶ 35, 36. And, as referenced in the patent, this conversion is something that can be performed easily by a human. Ex. 1001 at 3:64-67 and 6:18-20; Ex. 1009, ¶ 23.

### **B. Prosecution History**

U.S. Patent Application No. 13/863,556 (“the ’556 Application”), filed on April 16, 2013, issued as the ’550 Patent and is a continuation of the ’502 Patent, which was filed June 25, 2012, and the ’673 Parent Patent, which was filed on May 25, 2006. The ’550 Patent is also a continuation-in-part of application Nos. 13/681,479 and 13/681,493, which were both filed on November 20, 2012. The specifications of the ’502 Patent and the ’673 Parent Patent and the ’550 Patent are practically identical. The drawings and the written disclosure are the same. The ’550 Patent does, however, differ from the ’673 Parent Patent in the following ways: a) the specification was amended to replace the term “invention” with “disclosure;” b) the ’550 Patent includes a New Abstract; and c) the ’550 Patent includes thirty new claims. The Abstract of the ’550 Patent references a “commerce partner” that receives “compensation” as part of the conversion

process. Ex. 1010, As-Filed Application. No other reference to a commerce partner is made in the specification.

At the time of the filing of the '556 Application, applicants did not file a Preliminary Amendment or indicate to the Examiner that the specification had been modified or that the Abstract included new matter. Ex. 1010, As-Filed Application. The term "commerce partner" does not appear in the '673 Parent Patent, but was included as new matter in the '502 Patent on June 25, 2012. Thus, the asserted claims disclosing a commerce partner should not be entitled to the priority date of the '673 Parent Patent, but rather a priority date of June 25, 2012, when that limitation was first added to the application.

Moreover, applicants re-introduced the term "non-negotiable credits" into claims of the '502 and '550 patents after this term was explicitly replaced with "entertainment credits" to overcome a prior art rejection during prosecution of the application that led to the '673 Parent Patent. *See* Ex. 1008, Amendment, Aug. 12, 2009. Also, during prosecution of the '550 Patent, applicants submitted Information Disclosure Statements that included over 100 sheets of SB/08 form listing approximately 861 pieces of prior art. Ex. 1010, Information Disclosure Statements. Yet, the Examiner cited to no prior art during the brief four month prosecution of the '550 Patent and the patent issued on August 20, 2013, without

any rejection on any ground, let alone a rejection over any of the disclosed prior art. Ex. 1010.

## **V. GROUNDS FOR STANDING**

### **A. At Least One Challenged Claim Is Unpatentable**

As detailed herein, claims 1-3 and 5-7 of the '550 Patent are invalid under at least one or more of 35 U.S.C. §§ 101, 102, 103, and 112. For the reasons set forth below, it is more likely than not that at least one of the claims of the '550 Patent is unpatentable. 35 U.S.C. § 324(a).

### **B. The '550 Patent is A Covered Business Method Patent**

The AIA defines a covered business method (“CBM”) patent as “a patent that claims a method or corresponding apparatus for performing data processing or other operations used in the practice, administration, or management of a financial product or service . . . .” AIA § 18(d)(1); *see also* 37 C.F.R. § 42.301. The phrase, “used in the practice, administration, or management of a financial product or service,” has wide applicability. “[P]ractice, administration, [or] management” is “intended to cover any ancillary activities related to a financial product or service, including. . . marketing, customer interfaces, [and] Web site management and functionality.” 157 Cong. Rec. S1365 (daily ed. Mar. 8, 2011) (statement of Sen. Schumer). The USPTO noted that the AIA’s legislative history demonstrates that “financial product or service” should be “interpreted broadly,” encompassing patents “claiming activities that are financial in nature, incidental



to a financial activity or complementary to a financial activity.” Transitional Program for Covered Business Method Patents; 77 Fed. Reg. 48,734, 48,735 (Aug. 14, 2012) (“Corrected Exhibit 1011”). This Board has also explained that “[t]he term financial is an adjective that simply means relating to monetary matters.” CBM2012-00001, Paper 36 at 23 (P.T.A.B. Jan. 9, 2013).

According to the USPTO, “patents subject to covered business method patent review are anticipated to be typically classifiable in Class 705.” Ex. 1011 at 48,739. When examining the ’550 Patent, the USPTO Examiner deemed class 705 within the field of classification search. By way of example, the ’550 Patent Abstract explains that “entity independent funds are accepted by a commerce partner as at least partial *payment for goods or services* provided by the commerce partner[.]” Ex. 1001 at Abstract (emphasis added), and “wherein the agreement specifies that the entity is to *compensate* the commerce partner[.]” *id.* at 6:64-66 (emphasis added). Further, as discussed above, the ’550 Patent is directed to converting non-negotiable credits to the “monetary equivalent” of the non-negotiable credits which “can be automatically transferred to a financial account” and can be “held with a financial institution.” *Id.* at 4:45-47 and 3:29-32. The only disclosed embodiment describes converting 100 Entertainment Rewards to \$100. *Id.* at 5:23-34 and Fig. 2.

Similarly, the '550 Patent Claims are directed to management of the financial service of converting credits to funds and explicitly recite financial elements including, for example, “conversions of non-negotiable credits to entity independent funds,” “entity independent funds are redeemable . . . for commerce partner goods or for commerce partner services,” “the entity is to compensate the commerce partner,” and “in absence of being converted the non-negotiable credits are not accepted as payment for commerce partner goods or for commerce partner services.” *Id.* at Claim 1. Dependent claims 2-3 and 5-7 also recite similar elements that are directed to management of the financial service of converting credits to funds.

Finally, in the complaints filed in the Eastern District of Texas, the Patent Owner agrees that, in the '550 Patent, a “system and method is disclosed wherein a commerce partner agrees to accept transfers or conversions of quantities of non-negotiable credits to entity independent funds . . . . The commerce partner is compensated for providing the entity independent funds to the consumer.” Ex. 1012, ¶ 9. Similarly, the Patent Owner sued nine airlines for allegedly operating “a computerized system whereby users and administrators convert loyalty program points into other units for acquiring goods or services.” *Id.*, ¶ 4. For at least these reasons, the '550 Patent is indisputably directed to a financial product or service and thus is subject to a CBM proceeding.

**C. Claims 1-3 and 5-7 Are Not Directed to A “Technological Invention”**

The AIA excludes “patents for technological inventions” from the definition of CBM patents. AIA § 18(d)(1). To determine whether a patent is for a technological invention, “the following will be considered on a case-by-case basis: whether the claimed subject matter as a whole recites a technological feature that is novel and unobvious over the prior art; and solves a technical problem using a technical solution.” 37 C.F.R. § 42.301. To institute a CBM post-grant review, a patent need only have *one* claim directed to a CBM, and not a technological invention, even if the patent includes additional claims that are directed to technological inventions. Office Patent Trial Practice Guide, 77 Fed. Reg. 48,756, 48,756 (Aug. 14, 2012) (“Ex. 1013”); *see also* CBM2012-00001, Paper 36 at 26.

Recent decisions by the Board illustrate how these principles may be applied to system claims comprising hardware elements. For example, in considering a system claim directed to calculating insurance risk value, the PTAB stated that “on this record, none of the claim elements, such as sensors, vehicle bus, wireless transmitter, database, computer, memory, and server is novel and unobvious when considered ‘without’ the insurance nature of the data processed.” CBM2012-00003, Paper 15 at 13-14 (P.T.A.B. Feb. 12, 2013). Moreover, “simply using technology, even novel technology, is not sufficient to qualify for the ‘technological invention’ exception.” *Id.* at 10. The patent must recite a novel

technological feature that is not obvious over the prior art. Because the claims of the '550 Patent fail to recite a novel and unobvious technological feature *and* fail to recite a technical solution to a technical problem, the '550 Patent is not for a technological invention.

The '550 Patent makes clear that “[t]he present disclosure permits consumers to transform non-negotiable credits provided by an entity to negotiable funds.” Ex. 1001 at 2:53-55. However, the '550 Patent does not recite a novel and unobvious technological feature because the '550 Patent only claims generic, conventional, and routine computer programs. The patent acknowledges “that the methods detailed herein can also be methods performed at least in part by a service agent,” and do not require anything more than conventional hardware. *Id.* at 3:64-67. In fact, the claimed methods of currency conversion were being performed by using slide-rules decades before the '550 Patent was filed. Ex. 1002 and Ex. 1003.

For example, the only hardware component independent claim 1 recites is “a computer.” The patent itself concedes that this component was well known, *e.g.*, “[a]ny kind of computer system or other apparatus . . . is suited.” Ex. 1001 at 6:18-20. Such recitation is not sufficient to qualify the patent as a technological invention. “Mere recitation of known technologies, such as computer hardware, communication or computer networks, software, memory, computer-readable storage medium, scanners, display devices or databases, or specialized machines,

such as an ATM or point of sale device,” or “[r]eciting the use of known prior art technology to accomplish a process or method, even if that process or method is novel and nonobvious” will “not typically render a patent a technological invention.” *See, e.g.*, Ex. 1013 at 48,764; *see also* CBM2012-00002, Paper 10 at 7-8 (P.T.A.B. Jan. 25, 2013).

The patent also does not solve a technical problem using a technological solution. The ’550 Patent does not claim any improvement in computer technology. Rather, the patent admits that the claimed methods can be implemented by a human and/or by a general purpose computer system. Ex. 1001 at 6:18-24. The only problem the ’550 Patent purports to solve is to “permit consumers to transform non-negotiable credits provided by an entity to negotiable funds.” *Id.* at 2:53-55. This, however, is a financial problem, not a technical problem. Moreover, converting credits to funds was not a problem in May 25, 2006. Those of ordinary skill in the art already knew how to transfer credits to funds. *See infra* at § VII.B and VII.C. Thus, the ’550 Patent does not solve any problem using any solution, let alone a technological problem using a technological solution.

## **VI. STATEMENT OF PRECISE RELIEF REQUESTED FOR EACH CLAIM CHALLENGED**

### **A. Claims for which Review is Requested**

Petitioners respectfully request review under 35 U.S.C. § 321 and AIA § 18

of claims 1-3 and 5-7 of the '550 Patent, and the cancellation of those claims as unpatentable.

Independent claim 1 recites using known components (*e.g.*, a computer) to perform a simple calculation, namely converting “non-negotiable credits to entity independent funds,” and exchanging those funds for “goods” or “services.” Ex. 1001 at 6:67 to 7:1; 7:4-5. The claims include steps of: (i) “an agreement . . . between the entity and the commerce partner . . . to convert the non-negotiable credits to the entity independent funds”; (ii) “that the entity is to compensate the commerce partner in an agreed upon amount of cash or credit for conversions of non-negotiable credits to entity independent funds”; and (iii) “the entity independent funds are redeemable per the different loyalty program for commerce partner goods or for commerce partner services.” *Id.* at Claim 1. The claims also recite post-solution activity, *i.e.*, displaying web pages. *Id.* The specification makes clear that these steps can be performed by a human being or a general purpose computer, and that the conversion is merely a simple mathematical calculation. Ex. 1001 at 3:64-67 and 6:18-20.

## **B. Statutory Grounds of Challenge**

Petitioners respectfully request that claims 1-3 and 5-7 be cancelled as unpatentable under 35 U.S.C. §§ 101, 102, 103, and 112. The claim construction,

reasons for unpatentability, and specific evidence supporting this request are detailed below.

### **C. Priority Date for Claims 1-3 and 5-7 of the '550 Patent**

The '550 Patent was filed on April 16, 2013, and is a continuation of U.S. Patent No. 7,703,673, which was filed on May 25, 2006, and U.S. Patent No. 8,297,502, which was filed on June 25, 2012. The '550 Patent, however, is not entitled to the earlier priority date of the '673 Parent Patent because the subject matter of claims 1-3 and 5-7 was not disclosed in accordance with 35 U.S.C. § 112(a) (known as §112, first paragraph prior to AIA). Accordingly, at most, the effective filing date of the '550 Patent Claims is June 25, 2012.

The '673 Parent Patent fails to disclose or reference the term “commerce partner” or a commerce partner agreeing to accept transfers, conversions, and/or compensation, as recited in claim 1 of the '550 Patent. *See, e.g., Infra* at § VII.D. The term or concept of a “commerce partner” was first introduced in the '502 Patent, Ex. 1006. Moreover, none of the '673 Parent Patent, the '502 Patent or the '550 Patent provide adequate written description for the conversion of loyalty points of an entity to currency of a commerce partner, (*i.e.*, loyalty points of *the commerce partner*), as required by claim 1. *See, e.g., Infra* at § VII.D; Ex. 1009, ¶¶ 117-135. Even if the earlier priority date of May 25, 2006 applies, there is

substantial prior art that pre-dates May 25, 2006 and thus invalidates the '550 Patent.

#### **D. Claim Construction**

##### **1. Broadest Reasonable Interpretation**

In a CBM proceeding, a claim in an unexpired patent is to be given its broadest reasonable construction in light of the specification in which it appears. 37 C.F.R. § 42.300(b); *see also In re Yamamoto*, 740 F.2d 1569, 1571 (Fed. Cir. 1984). The '550 Patent has not expired. Thus its claims, for the purposes of this proceeding only, should be given their broadest reasonable interpretation. The framework for claim construction in District Court is different from the “broadest reasonable interpretation standard,” and Petitioners reserve their rights to propose constructions in District Court based on the framework set forth in *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312-18 (Fed. Cir. 2005) (*en banc*).

**Simple statement:** Pursuant to the USPTO's Office Patent Trial Practice Guide, a party may provide “a simple statement that the claim terms are to be given their broadest reasonable interpretation, as understood by one of ordinary skill in the art and consistent with the disclosure.” Ex. 1013 at 48,764. Petitioner so states for all terms as supplemented by the discussion below as to terms that may be of particular interest in this proceeding. The below



constructions and the rationale therefore are supported by the Declaration of Dr. Sandeep Chatterjee, Ex. 1009, ¶¶ 25-27.

<b>Claim Term</b>	<b>Broadest Reasonable Interpretation</b>
“entity”	an organization that offers a rewards program to a consumer
“commerce partner”	an organization that is a partner of the entity
“non-negotiable credits”	credits or points of a reward program of an entity
“entity independent funds”	funds including monetary currency and/or loyalty points that are not associated with the entity
“loyalty points”	a type of currency specific to an entity

## 2. “entity”

Claim 1 recites “a computer serving a set of one or more Web pages for a loyalty program of an entity . . . the Web pages are able to be rendered . . . as a graphical user interface . . . said graphical user interface shows a quantity of non-negotiable credits.” Ex. 1001 at 6:43-50. While the ’550 Patent specification does not explicitly define the term “entity,” the ’550 Patent states “[e]ntities often reward consumers for utilizing their services with non-negotiable credits, such as frequent flier miles, consumer loyalty points, and entertainment credits” and “[t]he present disclosure permits consumers to transform non-negotiable credits provided by an entity to negotiable funds.” *Id.* at 1:40-42 and 2:53-55. Similarly,

independent claim 1 recites that an entity offers non-negotiable credits as part of a rewards program. *See id.* at 6:50-52 (“said non-negotiable credits are loyalty points of the loyalty program possessed by a member”). Accordingly, given the broadest reasonable interpretation, the Board should construe “entity” to mean “an organization that offers a rewards program to a consumer,” as would be understood by a person of ordinary skill in the art to be the plain meaning. Ex. 1009, ¶¶ 25-27.

### **3. “commerce partner”**

Claim 1 recites “an agreement exists between the entity and the commerce partner, wherein the agreement permits members to convert the non-negotiable credits to the entity independent funds in accordance with a fixed credits-to-funds conversion ratio.” Ex. 1001 at 6:60-64. There is no disclosure in the ’550 Patent of a commerce partner except for the Abstract that states “entity independent funds are accepted by a commerce partner as at least partial payment for goods or services provided by the commerce partner.” *Id.* at Abstract. Accordingly, given the broadest reasonable interpretation, the Board should construe “commerce partner” to mean “an organization that is a partner of the entity,” as would be understood by a person of ordinary skill in the art to be the plain meaning. Ex. 1009, ¶¶ 25-27.

#### 4. “non-negotiable credits”

Claim 1 recites “wherein said non-negotiable credits are loyalty points of the loyalty program possessed by a member.” Ex. 1001 at 6:43-52. The ’550 Patent states “[e]ntities often reward consumers for utilizing their services with non-negotiable credits, such as frequent flier miles, consumer loyalty points, and entertainment credits. These non-negotiable credits can be applied towards products and/or services provided by a granting entity or its affiliates.” *Id.* at 1:40-44. Similarly, independent claim 1 recites that non-negotiable credits are earned as part of a reward program. Accordingly, given the broadest reasonable interpretation, the Board should construe “non-negotiable credits” to mean “credits or points of a reward program of an entity,” as would be understood by a person of ordinary skill in the art. Ex. 1009, ¶¶ 25-27.

#### 5. “entity independent funds”

The only disclosure provided in the specification of the ’550 Patent of “entity independent funds” is currency and/or monetary value. *See, e.g.*, Ex. 1001 at 2:63 to 3:8, 4:45-47, 5:23-34, Fig. 2. Accordingly, given the broadest reasonable interpretation, a person of ordinary skill in the art in view of the specification would understand entity independent funds to include at least monetary currency. Moreover, claim 1 recites “wherein said entity-independent funds are different loyalty points of a different loyalty program of a commerce partner.” Ex. 1001 at

6:56-58. Thus, a person of ordinary skill in the art, in view of the claims, would understand entity independent funds to also include at least loyalty points. Ex. 1009, ¶¶ 25-27. Accordingly, given the broadest reasonable interpretation, the Board should construe “entity independent funds” to mean “funds including monetary currency and/or loyalty points of the commerce partner that are not associated with the entity.”

## **6. “loyalty points”**

The specification of the '550 Patent describes “loyalty points” as non-negotiable credits that are earned as part of a rewards program of an entity. *See, e.g.*, Ex. 1001 at 1:40-46, Fig. 2. For example, the '550 Patent discloses “[e]ntities often reward consumers for utilizing their services with non-negotiable credits, such as frequent flier miles, consumer loyalty points, and entertainment credits.” *Id.* at 1:40-46. The specification also explains that these loyalty points are associated with a specific entity and can be used to purchase goods and services from that entity. *Id.* at 1:42-62. Thus, a person of ordinary skill in the art, in view of the claims, would understand “loyalty points” to be associated with a particular entity and to be used as a currency with that entity. Ex. 1009, ¶¶ 25-27. Accordingly, given the broadest reasonable interpretation, the Board should construe “loyalty points” to mean “a type of currency specific to an entity.”

**E. Petitioners Have Been Sued For Infringement of the '550 Patent and Are Not Estopped**

Petitioners have been sued for infringement of claims 1-3 and 5-7 of the '550 Patent in United States District Court for the Eastern District of Texas. Petitioners are not estopped from challenging the claims on the grounds identified in the petition. 37 C.F.R. 42.302(b). Exs. 1012, 1014-17. Petitioners have not been party to any other post-grant review of the challenged claims.

**VII. CLAIMS 1-3 AND 5-7 OF THE '550 PATENT ARE UNPATENTABLE**

**A. Ground No. 1: Claims 1-3 and 5-7 are Invalid Under 35 U.S.C. § 101**

Laws of nature, abstract ideas and natural phenomena cannot be patented. *Mayo*, 132 S. Ct. at 1293. When a patent claims abstract ideas, like currency conversion, which is at the heart of the '550 Patent, it must add “significantly more” to be patent-eligible. *Id.* at 1294; *Parker v. Flook*, 437 U.S. 584, 593-94 (1978). It is not sufficient to limit the claim to “a particular technological environment” or to add “insignificant post solution activity” or “well-understood, routine, conventional activity.” *Bilski*, 130 S. Ct. at 3230; *Mayo*, 132 S. Ct. at 1294. Instead, a claim involving an unpatentable concept must contain “other elements or a combination of elements, sometimes referred to as the ‘inventive concept,’” sufficient to prevent patenting the underlying concept. *Mayo*, 132 S. Ct. at 1294. Another way a claim may recite “significantly more” than an abstract idea is to be “tied to a particular machine or apparatus” or “transform[ ] a

particular article into a different state or thing.” *Bilski*, 130 S. Ct. at 3225-26, 3227. Under any of these analyses, the ’550 Patent Claims fail to satisfy 35 U.S.C. § 101.

### **1. The ’550 Patent Claims Are Unpatentably Abstract**

The ’550 Patent covers nothing more than the abstract concept of currency conversion. Ex. 1001 at 2:53-60; Ex. 1009, ¶ 34. The Supreme Court has many times ruled that mathematical calculations, even if they are innovative (which is not the case here), are unpatentable abstract ideas. *Gottschalk v. Benson*, 409 U.S. 63, 72 (1972); *Flook*, 437 U.S. at 587-86. Indeed, the Eastern District of Texas recently ruled that a patent for “optimizing the processing of floating point numbers,” or numbers with digits to the right and left of the decimal, by a computer which is more complex than processing integers, was invalid under § 101 for claiming a mathematical formula. *Uniloc USA, Inc. v. Rackspace Hosting, Inc.* No. 6:12-CV-375, 2013 WL 7393173, at \*4 (E.D. Tex Mar. 27, 2013) (“[J]ust as in *Benson*, Claim 1 discloses a ‘procedure for solving a given type of mathematical problem.’” (quoting *Benson*, 409 U.S. at 65)); *see also Clear with Computers, LLC v. Dick’s Sporting Goods, Inc.*, No. 6:12-CV-674, 2014 WL923280, at \*1, \*4 (E.D. Tex. Jan. 21, 2014) (ruling that claims directed to a “system which facilitates sales from an inventory of the selling entity,” were

unpatentable because the independent claim could be “performed entirely by a human, mentally or with pencil and paper”).

The '550 Patent likewise claims only the abstract idea of converting currency with nothing more than “well-understood, routine, conventional activity” added. *See Mayo*, 132 S. Ct. at 1294; Ex. 1009, ¶¶ 34, 35. The patent claims do not add anything beyond routine, conventional activities to this unpatentable abstract concept. *See* Ex. 1001 at 6:42 to 7:55; Ex. 1009, ¶¶ 34, 35. In addition to the abstract idea of currency conversion, claim 1 involves several but largely insignificant steps: (i) “show[ing] a quantity of non-negotiable credits, wherein said non-negotiable credits are loyalty points of the loyalty program possessed by a member,” (ii) “an agreement . . . between the entity and the commerce partner . . . permits members to convert the non-negotiable credits to the entity independent funds in accordance with a fixed credits-to-funds ratio”; (iii) “that the entity is to compensate the commerce partner in an agreed upon amount of cash or credit for conversions of non-negotiable credits to entity independent funds”; (iv) “the entity independent funds are redeemable per the different loyalty program for commerce partner goods or for commerce partner services”; and (v) “serving . . . Web pages or Web page updates that include the effectuated changes . . . wherein . . . the graphical user interface is updated with the effectuated changes.” Ex. 1001 at 6:43 to 7:26; Ex. 1009, ¶ 40.

These additional steps are insignificant because they are not novel, or inventive in any way. Ex. 1009, ¶ 41. Each step lacks any significance to the abstract process of currency conversion. *Id.* For example, all that is really described is showing loyalty points; an agreement to accept transfers; compensating a commerce partner for granting of the requested quantity; accepting a portion of the requested quantity; and showing the result of the currency conversion. *Id.* These concepts were well known before the filing of the patent, and can and are performed manually. *Id.* Even the serving of Web pages simply includes showing the result of the currency conversion and can be shown on a paper identifying the exchanged amount or manually when one type of paper currency is exchanged for another type of paper currency. *Id.* These concepts are far from novel, as they are simply describing the known process of entering into an agreement or contract and performing an exchange based on terms of the agreement. These steps do not render the claimed methods statutory subject matter. “[I]f a claim is directed essentially to a method of calculating, using a mathematical formula, even if the solution is for a specific purpose, the claimed method is nonstatutory.” *See Digitech Image Techs., LLC v. Sigma Corp.*, No. 8:12-cv-1681, 2013 WL 3947137, at \*8 (C.D. Cal. July 31, 2013) (quoting *Flook*, 437 U.S. at 595).



Claim 1 also recites conventional software components including “browser,” “graphical user interface,” and “Web pages” in claims 1-3 and 5-7. Such components, however, also do not render these claims statutory. This is at least because these recitations do not add anything more than insignificant post-solution activity. *See, Dealertrack, Inc. v. Huber*, 674 F. 3d 1315 (Fed. Cir. 2012) (a computer-aided method claim with references to display device and terminal devices and nothing more particular was found ineligible). Recognizing that reciting conventional computing components to implement an abstract concept does not render a claim statutory, the Federal Circuit has held that “[s]imply implementing an abstract concept on a computer, without meaningful limitations to that concept, does not transform a patent-ineligible claim into a patent-eligible one.” *See Accenture Global Servs., GmbH v. Guidewire Software, Inc.*, 728 F.3d 1336, 1345 (Fed. Cir. 2013). Similarly, the U.S. District Court for the Northern District of California recently ruled that a patent for “providing dynamic tabs for a graphical user interface” that includes displaying icons on a web page was invalid under Section 101 because “[t]he addition of a computer limitation does not transform the abstract idea into a patentable invention.” *Internet Patents Corp. v. Gen. Auto. Ins. Servs., Inc.*, No. C 12-05036 JSW, 2013 WL 7936688, at \* 4 (N.D. Cal. Sept. 24, 2013). This Board has also recently held that “[t]o be meaningful, the [limitations] must contain more than mere field-of-use

limitations, tangential references to technology, insignificant pre- or post-solution activity, ancillary data-gathering steps, or the like.” CBM2012-00001, Order Instituting Trial dated January 9, 2013, 29.

Even with the use of web pages and graphical user interfaces, the claimed steps simply convert currency for use in the purchase of goods or services. They do not render the claimed methods statutory. “[I]f a claim is directed essentially to a method of calculating, using a mathematical formula, even if the solution is for a specific purpose, the claimed method is nonstatutory.” *See Digitech Image Techs., LLC v. Sigma Corp.*, No. 8:12-cv-1681, 2013 WL 3947137, at \*8 (C.D. Cal. July 31, 2013) (quoting *Flook*, 437 U.S. at 595). This abstract nature of the ’550 Patent is confirmed by the patent itself, which makes clear that the currency conversions recited in the claims can be performed manually. Ex. 1009, ¶¶ 46-49. Specifically, the patent discloses that “the methods detailed herein can also be methods performed at least in part by a service agent and/or a machine manipulated by a service agent in response to a service request.” Ex. 1001 at 3:64-67; Ex. 1009, ¶¶ 34-38. The patent states that a consumer can interact with a “conversion agency server 130 via client 110...[which] can be any of a variety of interfaces including, but not limited to, another human being.” Ex. 1001 at 4:7-9, 15-18, FIG. 1. This demonstrates the claims’ invalidity because methods which can be performed “in the human mind, or by a human using a pencil and paper” are unpatentable

abstract ideas. *CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1372 (Fed. Cir. 2011).

The fact that the '550 Patent Claims may involve “[a]ny kind of computer system” including a “general purpose computer system” displaying a graphical user interface and web pages (Ex. 1001 at 6:18-24), does not change this result and, based upon well established case law, actually confirms that the claims are unpatentably abstract. Ex. 1009, ¶ 39. Using a computer “for no more than its most basic function—making calculations or computations—fails to circumvent the prohibition against patenting abstract ideas and mental processes.” *Bancorp Servs., L.L.C. v. Sun Life Assurance Co. of Can.*, 687 F.3d 1266, 1278 (Fed. Cir. 2012).

The computer must be “integral to the claimed invention, facilitating the process in a way that a person making calculations or computations could not.” *Id.* “[A]ppending generic computer functionality to lend speed or efficiency to the performance of an otherwise abstract concept does not meaningfully limit claim scope for purposes of patent eligibility.” *CLS Bank Int’l v. Alice Corp.*, 717 F.3d 1269, 1286 (Fed. Cir. 2013) (en banc) (citing *Bancorp*, 687 F.3d at 1278, and *Dealertrack*, 674 F.3d at 1333-34 (finding that the claimed computer-aided clearinghouse process is a patent-ineligible abstract idea)), *cert. granted*, 134 S. Ct. 734 (2013); *SiRF Tech., Inc. v. ITC*, 601 F.3d 1319, 1333 (Fed. Cir. 2010) (“In order for the addition of a machine to impose a meaningful limit on the scope of a

claim, it must play a significant part in permitting the claimed method to be performed, rather than function solely as an obvious mechanism for permitting a solution to be achieved more quickly, *i.e.*, through the utilization of a computer for performing calculations.”).

Nothing in the patent suggests that a computer or graphical user interfaces and web pages displayed by the computer are integral to the invention. Rather, the patent makes clear that the computer is merely disclosed to accept the request for conversion, convert the non-negotiable credits into entity independent funds, display web pages, and make the entity independent funds available to the consumer for use. Ex. 1009, ¶¶ 41-43. And that there is nothing special about the computer; in fact, it discloses only a general purpose computer. *See* Ex. 1001 at 6:42 to 7:55, FIG. 2, FIG. 3. Each of these steps can be performed by humans without the aide of computers and/or by merely using a slide rule. Ex. 1009, ¶ 36. It is clear the computer disclosed in the '550 Patent is merely automating steps humans can, and have, easily performed on their own for some time. *See e.g.*, *Infra* at § VII.B and VII.C; *see also* Exs. 1005 and 1004.

Moreover, the fact that the '550 Patent Claims recite “an agreement . . . between the entity and the commerce partner, wherein the agreement permits members to convert the non-negotiable credits to the entity independent funds in accordance with a fixed credits-to-funds conversion ratio, [and] . . . specifies that

the entity is to compensate the commerce partner in an agreed upon amount of cash or credit . . .” (Ex. 1001 at 6:60 to 7:5) further confirms that the claims are unpatentably abstract. Claiming an agreement that defines the parameters upon which to apply basic computer functions is unpatentable under § 101 even though those claims require the use of a business agreement between an entity and a commerce partner and using a computer for no more than making basic calculations or computations. *Fort Props., Inc. v. Am. Master Lease LLC*, 671 F.3d 1317 1322-23 (Fed. Cir. 2012); *CLS Bank*, 717 F.3d at 1286; *Bancorp*, 687 F.3d at 1278, *Dealertrack*, 674 F.3d at 1333-34; *SiRF Tech.*, 601 F.3d at 1333; *Accenture*, 728 F.3d at 1345. When viewing the claimed invention as a whole, the methods of doing business involving the entity and commerce partner agreement are insufficient to render these claims patentable.

## **2. The ’550 Patent Claims Do Not Satisfy the Machine-or-Transformation Test**

The ’550 Patent Claims are invalid under Section 101 for the additional reason that the claims are not tied to any particular machine and do not transform any article into a different state or thing. Ex. 1009, ¶ 52. The patent itself emphasizes that the so-called invention may be implemented by any general purpose computer to carry out the conversions:

The present disclosure may be realized in hardware, software, or a combination of hardware and software.

The present disclosure may be realized in a centralized fashion in one computer system or in a distributed fashion where different elements are spread across several interconnected computer systems. *Any kind of computer system or other apparatus* adapted for carrying out the methods described herein is suited. A typical combination of hardware and software may be *a general purpose computer system* with a computer program, that when being loaded and executed, controls the computer system such that it carries out the methods described herein. . . . *Computer program in the present context means any expression, in any language, code or notation, of a set of instructions intended to cause a system having any information processing capability to perform a particular function* either directly or after either or both of the following: a) conversion to another language, code or notation; b) reproduction in a different material form.

Ex. 1001 at 6:13-35 (emphasis added).

Nothing in the claims or the patent indicates that any particular machine or device is needed. Ex. 1009, ¶ 52. “To salvage an otherwise patent-ineligible process, a computer must be integral to the claimed invention, facilitating the process in a way that a person making calculations or computations could not. *Bancorp*, 687 F.3d at 1278. The minimal computer involvement found in the ’550 Patent has long been found insufficient to impart patent-eligibility. *See, e.g.*,

*Benson*, 409 U.S. at 67 (invalidating claims that “can be carried out in existing computers long in use, no new machinery being necessary,” and that “can also be performed without a computer”); *Fort Props.*, 671 F.3d at 1323 (invalidating claims “using a computer” because the computer did not “play a significant part in permitting the claimed method to be performed” (quoting *Dealertrack*, 674 F.3d at 1333)).

Finally, the '550 Patent Claims also do not transform any article into a different state or thing. Ex. 1009, ¶ 52. Instead, the claims merely describe converting one form of currency—non-negotiable credits—into negotiable funds or entity independent funds by using a “ratio [that] can be determined by any of a variety of means” and performing post-solution activity including displaying web pages. *See* Ex. 1001 at 5:47-51; 9:59-12:46, FIG. 2, FIG. 3. As noted above, such a conversion can be performed by a human being and would not involve changing the state of any article. *Id.* at 3:42-44. Further, even if the conversion is performed by a general purpose computer displaying web pages, and even if the conversion includes changing data from one format to another using a simple ratio, the Supreme Court has held that converting data from one format to another, through a known process, does not render a claim patent eligible. *See Benson*, 409 U.S. at 63 (refusing to extend 35 U.S.C. § 101 to cover methods using general purpose computers to convert binary-coded decimal numerals into pure binary numerals).

Moreover, performing a simple calculation using a ratio and displaying post-solution activity is not a patent-eligible transformation. *See, e.g., CyberSource*, 654 F.3d at 1375; *see also Bancorp*, 687 F.3d. at 1273. Thus, performing the claimed calculation using a ratio is not a patent-eligible transformation. *See, e.g., CyberSource*, 654 F.3d at 1375; *see also Bancorp*, 687 F.3d. at 1273; *Uniloc*, 2013 WL 7393173 (holding that mere manipulation of data does not satisfy the machine-transformation test).

Because the '550 Patent Claims are not tied to a particular machine and do not transform articles, and because the claims are directed to an abstract idea without adding significantly more, the claims are invalid under 35 U.S.C. § 101.

**B. Ground No. 2: Claims 1-3 and 5-7 are Invalid Under 35 U.S.C. § 102(b) as Being Anticipated by *MacLean et al.***

U.S. Patent Application Publication No. 2002/0143614 A1 to MacLean et al. ("*MacLean*") was published on October 3, 2002. The '550 Patent was filed on April 16, 2013. Even if the '550 Patent is entitled to a priority date of May 25, 2006, *MacLean* qualifies as prior art under pre-AIA 102(b). *MacLean* discloses a web-based system to "convert points of one LP into points issued by a different LP," where LP is disclosed in *MacLean* to be a loyalty program. Ex. 1005, ¶ [0017] and Figs. 6A-I; Ex. 1009, ¶ 62. Thus, as discussed below, *MacLean* discloses each and every element of claims 1-3 and 5-7. Ex. 1009, ¶¶ 62-71, 77-87.



**1. *MacLean* Discloses Converting Non-negotiable Credits to Entity Independent Funds, Wherein the Non-negotiable Credits and Entity Independent Funds Are Loyalty Points of Different Loyalty Programs**

*MacLean* “relates to apparatus and methods for keeping track of points and, in particular, for managing and exchanging those points that are issued and redeemed in the context of a loyalty program (LP).” Ex. 1005, ¶ [0001]. One of the “object of this invention [*MacLean*] is to enable a consumer to convert points of one LP into points issued by a different LP.” *Id.*, ¶ [0017]. The loyalty programs (LPs) disclosed in *MacLean* include “travel (airlines and hotels), financial (credit cards), retail and network (AirMiles, ClickRewards and WebMiles).” *Id.*, ¶ [0003].

In *MacLean*, a customer 110 may interact with transaction center 120 to convert points issued by points issuer 130a to points issued by points issuer 130b. *Id.*, ¶ [0040] and Fig. 1. For example, customer 110 can use a website to “exchange points issued by American Airlines for those issued by the American Express Card.” *Id.*, ¶ [0041]. Such a conversion is performed by, for example, logging into a website which offers a feature called “pointsexchange.” *Id.* at Fig. 4A. A user may “Exchange points or miles between programs and reach awards faster than ever before.” *Id.* *MacLean* discloses this exchange process in a step-by-step fashion process in Figs. 6A-6I. Ex. 1009, ¶¶ 62-68.

The screenshot shows the 'pointsxchange' website. At the top, there are navigation links: 'home', 'pointsfolio', 'xchange calculator', 'autoexchange', and 'award finder'. Below these is a breadcrumb trail: 'xchange now > pointsxchange'. A welcome message states: 'Welcome to pointsxchange where all your points and miles really count! With a points account each pointsxchange, from as many as 10 programs at one time, is just \$5.95CAD (plus applicable taxes). Or, open a pointsplus account to enjoy unlimited pointsxchanges for only \$14.95CAD per year (plus applicable taxes)'. The main content area is divided into two columns. The left column contains three steps: 'Step 1: xchange from:' with a dropdown menu, 'Step 2: xchange amount:' with a text input field, and 'Step 3: xchange to:' with a dropdown menu. The right column contains three steps: 'Step 1: Select the program from which you want to xchange', 'Step 2: Enter the amount you want to xchange', and 'Step 3: Select the program to which you want to xchange'. A 'calculate xchange' button is at the bottom right. On the far right, there is a sidebar with links for 'advanced pointsxchange', 'pointsxchange help', and a note about questions.

As shown in Fig. 6A, using drop-down menus, a user may: 1) select a first loyalty program from which the user plans to convert points; 2) select the number of points a user wants to convert; and 3) select a second loyalty program so that loyalty points from the first program are changed to loyalty points of this program. Ex. 1005 at Fig. 6A; Ex. 1009, ¶¶ 62-68. The user may then navigate through various screens until the conversion is complete. Ex. 1005, Figs. 6B-6I.

## 2. *MacLean* Discloses Converting Non-negotiable Credits to Entity Independent Funds in Accordance with A Fixed Credits-To-Fund Conversion Ratio

*MacLean* discloses that “[i]t is a still further object of this invention to establish a system for facilitating users to exchange points between LPs and to permit each participating point issuer to set the point **exchange rates** of its LP.” Ex. 1005, ¶ [0021] (emphasis added). Thus, *MacLean* discloses exchange rates that set the ratio for conversion between different loyalty programs. Ex. 1009, ¶¶ 78-79. One example of this ratio is disclosed as “3,600:10,000 or 0.36 between the first

issuer 900 and the second issuer 901.” Ex. 1005, ¶ [0064]; *see also* Fig. 6F (showing “xchange value” for conversion LP15 and LP8); Ex. 1009, ¶ 78.

**3. *MacLean* Discloses a Commerce Partner That Does Not Accept Non-negotiable Credits in the Absence of Being Converted, And Accepts Entity Independent Funds to Provide Commerce Partner Goods And Commerce Partner Services After The Conversion**

*MacLean* explains that “the number of LPs has exploded in recent years” and “[t]here are billions of points that sit in accounts with very limited redemption options and low utility to a customer, *i.e.*, the points are kept in accounts with balance that are below redemption levels, or a levels with limited redemption options.” Ex. 1005, ¶¶ [0004-06]; Ex. 1009, ¶¶ 80-81. Each loyalty program has its own restrictions and redemptions options such that “[t]ypically, each kind of point is issued and redeemed by a different LP and may have a different value or liability to its LP.” Ex. 1005, ¶ [0041]. Due to such restrictions, a member of LP15 (where LP15 may be a hotel loyalty points) cannot redeem loyalty points earned from LP15 to purchase goods or services (e.g., an airline ticket) from LP8 (where LP8 may be a frequent flyer program. *Id.*, ¶¶ [0003], [0041], and Fig. 6E; Ex. 1009, ¶¶ 80-81. Accordingly, *MacLean* discloses a system that allows users to exchange points earned from LP15 to points of LP8 such that after the conversion the user is able to purchase goods and services from the administrator of LP8 by using the converted points. Ex. 1005, ¶ [0052] and Figs. 6A-6I; Ex. 1009, ¶¶ 80-81.

**4. *MacLean* Discloses Wherein an Agreement Exists Between the Entity and Commerce Partner And Converting Non-negotiable Credits to Entity Independent Funds, Wherein The Commerce Partner is Compensated for Providing The Entity Independent Funds to The Consumer**

*MacLean* discloses that “the deposit of points into an LP's accounts represents an increase in the liability of that LP.” Ex. 1005 ¶ [0062]. In *MacLean*, the administrator of one loyalty program, *e.g.*, LP15, agrees with the administrator of another loyalty program, *e.g.*, LP16 to exchange points in exchange of being compensated. *Id.* and Fig. 6C and Fig 9. This compensation is determined based on a “rate per point.” *Id.*, ¶ [0062]. For example, *MacLean* states that “a withdrawal of 10,000 points from the customer's account with the first issuer 900 will pay \$80 in step 911 to the transaction center 902. The transaction center 902 levies in step 912 a transaction fee in the amount of \$8 that was set as a percentage of the cost of the withdrawal, leaving \$72 (913) available to buy points from the second issuer 901.” *Id.*, ¶ [0064]; *see also* ¶ [0067], and Fig. 9; Ex. 1009, ¶¶ 70, 81-83.

**5. *MacLean* Discloses a Computer Effectuating Changes, Serving One or More Web Pages Rendered as a Graphical User Interface and Updating Said Graphical User Interface in Response to Received Selection of Conversion Option**

*MacLean* discloses that the “customer carries out point exchanges by use of its customer terminal 110, which includes a customer computer 201 and a web browser 202. . . . Upon prompting, the customer enters the following data into the website: 1) information about itself and 2) data identifying each of the issuer LPs

from which points are to be withdrawn, each of the issuer LPs to which points are to be deposited, and the number of points to be withdrawn from each of the withdrawing LPs. This data is transmitted over the Internet 205 to the transaction center 120, where the transmitted data is processed.” Ex. 1005, ¶ [0045]; Ex. 1009, ¶ 85. Each of the disclosures above, *supra* §§ VII.B.1-4, thus, also can be effectuated with a computer serving one or more Web pages and rendered as a graphical user interface. Ex. 1005 at Figs. 6A-6I.

#### **6. Claim Chart for Claims 1-3 And 5-7 And *MacLean***

A claim chart disclosing each and every element of claims 1-3 and 5-7 in *MacLean* is included below.

<b>Claims of the '550 Patent</b>	<b>Exemplary Disclosure of <i>MacLean</i></b>
<p>[1 A]</p> <p>A method comprising:</p> <p>a computer serving a set of one or more Web pages for a loyalty program of an entity to one or more remotely located client machines, wherein the Web pages are able to be rendered within a client-side browser as a graphical user interface on the one or more client machines, wherein upon being rendered within the client-side browser said graphical user interface shows a quantity of non-</p>	<p>“This invention relates to apparatus and methods for keeping track of points and, in particular, for managing and exchanging those points that are issued and redeemed in the context of a loyalty program (LP).” Ex. 1005, ¶ [0001].</p> <p>“The customer carries out point exchanges by use of its customer terminal 110, which includes a customer computer 201 and a web browser 202. The customer “surfs” to a web site provided by the transaction center 120. Upon prompting, the customer enters the following data into the website: 1) information about itself and 2) data identifying each of the issuer LPs from which points are to be withdrawn, each of the issuer LPs to which points are to be deposited, and the number of points to be withdrawn from each of the withdrawing LPs. This data is transmitted over the Internet 205 to the transaction center 120, where</p>

Claims of the '550 Patent	Exemplary Disclosure of <i>MacLean</i>
negotiable credits, wherein said non-negotiable credits are loyalty points of the loyalty program possessed by a member,	the transmitted data is processed as will be described below.” Ex. 1005, ¶ [0045].  “As will be explained below, the point management system 100 of this invention permits a customer to effect an exchange of points from one LP to another. For example, a customer may <b>exchange points issued by American Airlines for those issued by the American Express Card</b> . Alternatively, the customer may transfer points issued by any number of LPs to a single LP, whereby the customer may redeem its collected points for the rewards offered by the single LP.” <i>Id.</i> , ¶ [0041] (emphases added); <i>see also</i> Abstract; ¶¶ [0017] and [0020]; and Figs. 6A-6I; Ex. 1009, ¶¶ 62-71, 77-87.
[1 B]  wherein upon being rendered within the client-side browser the graphical user interface comprises a conversion option to convert at least a subset of the shown non-negotiable credits into a quantity entity independent funds,	“The customer carries out point exchanges by use of its customer terminal 110, which includes a customer computer 201 and a <b>web browser 202</b> . The customer “surfs” to a web site provided by the transaction center 120. Upon prompting, the customer enters the following data into the website: 1) information about itself and 2) data identifying each of the issuer LPs from which points are to be withdrawn, each of the issuer LPs to which points are to be deposited, and the number of points to be withdrawn from each of the withdrawing LPs.” Ex. 1005, ¶ [0045] (emphasis added); <i>see also</i> Figs. 6A-6I; Ex. 1009, ¶¶ 62-71, 77-87.
[1 C]  wherein said entity independent funds are different loyalty points of a different loyalty program of a commerce partner,	“As will be explained below, the point management system 100 of this invention permits a customer to effect an exchange of points from one LP to another. For example, a customer may <b>exchange points issued by American Airlines for those issued by the American Express Card</b> .” Ex. 1005, ¶ [0041] (emphases added); <i>see also</i> Abstract; ¶¶ [0017] and [0020]; and Figs. 6A-6I; Ex. 1009, ¶¶ 62-71, 77-87.

Claims of the '550 Patent	Exemplary Disclosure of <i>MacLean</i>
<p>[1 D]</p> <p>wherein said entity independent funds are possessed by the member,</p>	<p>“The web server 230 provides a “web portal” interface for customers to track their <b>points balances as maintained by the issuers</b> in their terminals 130a-c and to effect point exchanges between their designated LPs . . . . As described in detail below, the master database 240, maintains a profile of each customer called a customer portfolio. Each customer portfolio includes identification, <b>current LP points balances</b> and a record of points exchanges for that customer. The web server 230 utilizes this profile to permit the customer 110 to login to the web site, to display point balances and to permit points exchange requests.” Ex. 1005, ¶ [0046] (emphases added); Ex. 1009, ¶¶ 62-71, 77-87.</p>
<p>[1 E]</p> <p>wherein an agreement exists between the entity and the commerce partner, wherein the agreement permits members to convert the non-negotiable credits to the entity independent funds in accordance with a fixed credits-to-funds conversion ratio,</p>	<p>“This invention is designed to operate using both types of protocols simultaneously, <b>depending upon the agreement with the issuer</b> in question. In addition, the master database 240 maintains a specific set of rules for each issuer, defining the specific protocol to be used when communicating with that issuer server 280. This permits extreme flexibility in connecting to a plurality of issuer servers running vastly disparate systems.” Ex. 1005, ¶ [0051] (emphases added).</p> <p>“As will be explained below, the point management system 100 of this invention permits a customer to effect an exchange of points from one LP to another. For example, a customer may exchange points issued by American Airlines for those issued by the American Express Card.” <i>Id.</i>, ¶ [0041].</p> <p>Agreement between the administrator of “LP15” and the administrator of “LP16,” and “rate per point” compensation. <i>Id.</i>, ¶ [0062] and Fig. 6C and Fig 9. This compensation is determined based on a “rate per</p>



Claims of the '550 Patent	Exemplary Disclosure of <i>MacLean</i>
	<p>point.” <i>Id.</i></p> <p>“It is a still further object of this invention to establish a system for facilitating users to exchange points between LPs and to permit each participating point issuer to set the <b>point exchange rates</b> of its LP.” <i>Id.</i>, ¶ [0021] (emphases added).</p> <p>“In this example, the customer sees an effective points exchange rate of 3,600:10,000 or 0.36 between the first issuer 900 and the second issuer 901.” <i>Id.</i>, ¶ [0064]; <i>see also</i> Fig. 6F (showing “xchange value” for conversion LP15 to LP8); Ex. 1009, ¶¶ 62-71, 77-87.</p>
<p>[1 F]</p> <p>wherein the agreement specifies that the entity is to compensate the commerce partner in an agreed upon amount of cash or credit for conversions of non-negotiable credits to entity independent funds,</p>	<p>“Any withdrawal of points from that LP's accounts represents a real reduction in that liability and has a monetary value. <b>By defining a rate per point that the LP is willing to pay to have points withdrawn from their accounts, the LP is able to “buy down” that liability.</b> This rate, called the point withdrawal rate, represents the monetization of first half of the points exchange. Similarly, the deposit of points into an LP's accounts represents an increase in the liability of that LP. <b>By defining a rate per point that the LP is willing to be paid to deposit points into their accounts, the LP is able to “sell” their points currency.</b> This rate, called the point deposit rate, represents the monetization of the second half of the points exchange.” Ex. 1005, ¶ [0062].</p> <p>“This means that for a withdrawal of 10,000 points from the customer's account with the <b>first issuer 900 will pay \$80</b> in step 911 to the transaction center 902. The transaction center 902 levies in step 912 a transaction fee in the amount of \$8 that was set as a percentage of the cost of the withdrawal, <b>leaving \$72 (913) available to buy points from the second issuer 901</b>, which has set in step 914 its</p>



Claims of the '550 Patent	Exemplary Disclosure of <i>MacLean</i>
	point deposit rate at \$0.02.” <i>Id.</i> , ¶ [0064]; <i>see also</i> ¶ [0067], and Fig. 9; Ex. 1009, ¶¶ 62-71, 77-87.
<p>[1 G]</p> <p>wherein said agreed upon amount is a multiple of a quantity of converted non-negotiable credits,</p>	<p>“A withdrawal of 10,000 points in step 910 from the first issuer 900 is requested. The first issuer 900 has examined its liability/points and set its point withdrawal rate at <b>\$0.008 per point</b>. This means that <b>for a withdrawal of 10,000 points</b> from the customer's account with the first issuer 900 <b>will pay \$80</b> in step 911 to the transaction center 902. The transaction center 902 levies in step 912 a transaction fee in the amount of \$8 that was set as a percentage of the cost of the withdrawal, leaving <b>\$72</b> (913) available to buy points from the second issuer 901, which has set in step 914 its point <b>deposit rate at \$0.02</b>.” Ex. 1005, ¶ [0064] (emphases added); Ex. 1009, ¶¶ 62-71, 77-87.</p>
<p>[1 H]</p> <p>wherein the entity independent funds are redeemable per the different loyalty program for commerce partner goods or for commerce partner services, wherein the commerce partner is not said entity,</p>	<p>“Typically, each kind of point is issued and redeemed by a different LP and may have a different value or liability to its LP.” Ex. 1005, ¶ [0041]; <i>see also Id.</i>, ¶¶ [0005-06].</p> <p>“It is a still further object of this invention to enable a customer to convert points of one LP into points issued by a different LP.” <i>Id.</i>, ¶ [0017].</p> <p>“For example, a customer may exchange points issued by American Airlines for those issued by the American Express Card.” <i>Id.</i>, ¶ [0041]; <i>see also</i> Figs. 6A-6I; Ex. 1009, ¶¶ 62-71 and 77-87.</p>
<p>[1 I]</p> <p>wherein in absence of being converted the non-negotiable credits are not accepted as payment for commerce partner goods or for</p>	<p>“Typically, each kind of point is issued and redeemed by a different LP and may have a different value or liability to its LP.” Ex. 1005, ¶ [0041]; <i>see also id.</i>, ¶ [0005-06].</p> <p>“It is a still further object of this invention to enable a customer to convert points of one LP into points</p>

Claims of the '550 Patent	Exemplary Disclosure of <i>MacLean</i>
commerce partner services;	<p>issued by a different LP.” <i>Id.</i>, ¶ [0017].</p> <p>“In the course of managing the LP, points are added to the customer's account typically when the customer purchases some goods or services, or are withdrawn when the customer redeems its points for some reward.” <i>Id.</i>, ¶ [0057]; <i>see also</i> Figs. 6A-6I;; Ex. 1009, ¶¶ 62-71.</p>
[1 J] the computer responsive to receiving a message indicating a selection of the conversion option, processing the selection to effectuate changes in the served set of Web pages; and	<p>“[T]he transaction center 120, operates as a “web portal” for the customers 110 through which they may view their current points balances for each issuer 130 and request the exchange of points between issuers 130a-c. The transaction center 120 acts as a “currency exchange” for the issuers 130a-c, effecting the exchange of points from one issuer to another.” Ex. 1005, ¶ [0043]; Fig. 2 and Figs. 6A-I; Ex. 1009, ¶¶ 62-71, 77-87.</p>
[1 K]  responsive to the processing, the computer serving one or more Web pages or Web page updates that include the effectuated changes to the one or more remotely located client machines,	<p>“The customer carries out point exchanges by use of its customer terminal 110, which includes a customer computer 201 and a web browser 202. The customer “surfs” to a web site provided by the transaction center 120. Upon prompting, the customer enters the following data into the website: 1) information about itself and 2) data identifying each of the issuer LPs from which points are to be withdrawn, each of the issuer LPs to which points are to be deposited, and the number of points to be withdrawn from each of the withdrawing LPs. This data is transmitted over the Internet 205 to the transaction center 120, where the transmitted data is processed as will be described below.” Ex. 1005, ¶ [0045].</p> <p>Figures 6A-6I of <i>MacLean</i> show a series of web pages that are served by “Transaction Server 250” with effectuated changes. Ex. 1009, ¶¶ 62-71, 77-87.</p>

Claims of the '550 Patent	Exemplary Disclosure of <i>MacLean</i>
<p>[1 L]</p> <p>wherein upon being rendered within the client-side browser the graphical user interface is updated with the effectuated changes,</p>	<p>“The customer carries out point exchanges by use of its customer terminal 110, which includes a customer computer 201 and a <b>web browser 202</b>. The customer “surfs” to a web site provided by the transaction center 120. Upon prompting, the customer enters the following data into the website: 1) information about itself and 2) data identifying each of the issuer LPs from which points are to be withdrawn, each of the issuer LPs to which points are to be deposited, and the number of points to be withdrawn from each of the withdrawing LPs. This data is transmitted over the Internet 205 to the transaction center 120, where the transmitted data is processed as will be described below.” Ex. 1005, ¶ [0045] (emphasis added).</p> <p>Figures 6A-6I of <i>MacLean</i> show a series of web pages that are served by “Transaction Server 250.” Ex. 1009, ¶¶ 62-71, 77-87.</p>
<p>[1 M]</p> <p>wherein the updated graphical user interface shows a reduced quantity of non-negotiable credits possessed by the member in the loyalty program, said reduced quantity resulting at least in part from the subset of non-negotiable credits being converted into the quantity of entity independent funds in accordance with the fixed credits-to-funds conversion ratio.</p>	<p>“The customer carries out point exchanges by use of its customer terminal 110, which includes a customer computer 201 and a web browser 202. The customer “surfs” to a web site provided by the transaction center 120. Upon prompting, the customer enters the following data into the website: 1) information about itself and 2) data identifying each of the issuer LPs from which points are to be withdrawn, each of the issuer LPs to which points are to be deposited, and <b>the number of points to be withdrawn from each of the withdrawing LPs</b>. This data is transmitted over the Internet 205 to the transaction center 120, where the transmitted data is processed as will be described below.” Ex. 1005, ¶ [0045] (emphases added).</p> <p>“In step 522, the exchange request is analyzed and a <b>points withdrawal transaction message is constructed</b> for each of the customer LP accounts designated as withdrawal LPs. In step 524, using one</p>

Claims of the '550 Patent	Exemplary Disclosure of <i>MacLean</i>
	<p>of the protocols described above, these points withdrawal transaction messages are communicated from the transaction server 250 to the designated issuer servers 280 via the appropriate communications link 206.” <i>Id.</i>, ¶ [0053] (emphases added).</p> <p>“After the customer's credit card information has been entered in step 516, step 517 displays a web page 670 which sets out as shown in FIG. 6H a “cancel” button 674, a “reset” button 676 and a “submit” button 678, which permits the customer to cancel or revise the credit card information and, if satisfactory, to click on the “submit” button 678 in step 618, whereby the customer's credit card data is submitted to effect payment for the exchange, and to display in step 519 a <b>web page 680 which summarizes, as shown in FIG. 6I, the points exchanged and issues a confirmation number 682.</b>” <i>Id.</i>, ¶ [0052] (emphases added).</p> <p>Figures 6A-6I of <i>MacLean</i> show a series of web pages that are served by “Transaction Server 250” with effectuated changes. Ex. 1009, ¶¶ 62-71, 77-87.</p>
Claim 2	
<p>2. The method of claim 1, wherein the updated graphical user interface shows a quantity of entity independent funds resulting from converting the subset of non-negotiable credits into the quantity of entity independent funds in accordance with the fixed credits-to-funds conversion ratio.</p>	<p>“Step 511 calculates the <b>exchange rates</b> for this points transaction and displays page 640, a summary of the withdrawal and deposit points, as illustrated in FIG. 6E . . . In particular, step 511 calculates the number of points to be transmitted to the designated depositing LP and displays in columns 643-647 respectively the withdrawing LPs, the number of points to be withdrawn, the number of points in the withdrawing LPs (the customer's account balance) before the exchange, and the number of points after the exchange.” Ex. 1005, ¶ [0052] (emphases added) and Figs. 6A-6I.</p>

Claims of the '550 Patent	Exemplary Disclosure of <i>MacLean</i>
	<p>“In this example, the customer sees an effective points exchange rate of 3,600:10,000 or 0.36 between the first issuer 900 and the second issuer 901.” Ex. 1005, ¶ [0064]; Ex. 1009, ¶¶ 62-71, 77-87.</p>
Claim 3	
<p>3. The method of claim 1, wherein the updated graphical user interface shows a quantity of available entity independent funds possessed by the member for use as payment for the goods or services provided by the commerce partner, said quantity of available entity independent funds including an amount resulting from the conversion operation.</p>	<p>“After the customer's credit card information has been entered in step 516, step 517 displays a web page 670 which sets out as shown in FIG. 6H a “cancel” button 674, a “reset” button 676 and a “submit” button 678, which permits the customer to cancel or revise the credit card information and, if satisfactory, to click on the “submit” button 678 in step 618, whereby the customer's credit card data is submitted to effect payment for the exchange, and to display in step 519 a web page 680 which summarizes, as shown in FIG. 6I, the points exchanged and issues a confirmation number 682.” Ex. 1005, ¶ [0052] (emphases added).</p> <p>Figures 6A-6I of <i>MacLean</i> show a series of web pages that are served by “Transaction Server 250” with effectuated changes. Ex. 1009, ¶¶ 62-71, 77-87</p>
Claim 5	
<p>5. The method of claim 1, wherein the entity imposes a lower threshold on the quantity of non-negotiable credits able to be converted via conversion option the Web pages, wherein the lower threshold is greater than one hundred non-negotiable credits.</p>	<p>“The customer proceeds to step 505 by actuating the “go to next step” button 614, whereby the web page 620 is displayed in step 506 as shown in FIG. 6C. Page 620 includes a plurality of boxes 622a-b to permit the customer's entry of the quantity of points to withdraw from each designated LP. After designating the withdrawing LPs, step 507 compares the current point balances of the customer's accounts in the withdrawing LPs with the number of points requested in step 506 and if the requested points is greater than the assessed account balances, then step 508 terminates the point exchange carried out by</p>

Claims of the '550 Patent	Exemplary Disclosure of <i>MacLean</i>
	the execution of the point exchange program <b>500</b> and a message is displayed to notify the customer that its <b>current point balances are insufficient</b> to complete the requested points exchange.” Ex. 1005, ¶ [0052] (emphases added); <i>see also</i> Figs. 6A-6I showing a conversion of more than hundred points. Ex. 1009, ¶¶ 62-71, 77-87.
<b>Claim 6</b>	
6. The method of claim 1, wherein the loyalty program of the entity is an airline, hotel, or credit card loyalty program, wherein the different loyalty program of the commerce partner is an airline, hotel, or credit card loyalty program.	“The points managed by the system <b>100</b> may take the form of a variety of Loyalty Program (“LP”) points such as those issued by airlines, hotels, financial entities, e.g., credit cards, and networks, e.g., portal web sites on the Internet. In deed, the points may not be related at all to LPs, but rather the points may represent the monetary currencies of different countries, and other units of value as would be recognized by those skilled in the art.” Ex. 1005 ¶ [0040]; Ex. 1009, ¶¶ 62-71, 77-87.
<b>Claim 7</b>	
7. The method of claim 1, wherein the computer serves the set of one or more Web pages, processes the selection, and serves the one or more Web pages or Web page updates that include the effectuated changes within a single user-interactive Web session.	<p>“The customer carries out point exchanges by use of its customer terminal 110, which includes a customer computer 201 and a web browser 202. The customer “surfs” to a web site provided by the transaction center 120. Upon prompting, the customer enters the following data into the website: 1) information about itself and 2) data identifying each of the issuer LPs from which points are to be withdrawn, each of the issuer LPs to which points are to be deposited, and the number of points to be withdrawn from each of the withdrawing LPs. This data is transmitted over the Internet 205 to the transaction center 120, where the transmitted data is processed as will be described below.” Ex. 1005, ¶ [0045].</p> <p>Figures 6A-6I of <i>MacLean</i> show a series of web</p>



Claims of the '550 Patent	Exemplary Disclosure of <i>MacLean</i>
	pages that are served by “Transaction Server 250” with effectuated changes. Ex. 1009, ¶¶ 62-71, 77-87.

**C. Ground No. 3: Claims 1-3 and 5-7 Are Invalid Under 35 U.S.C. § 103 as Being Obvious Over *Antonucci* in view of *MacLean***

U.S. Patent Application Publication No. 2002/0143614 A1 to MacLean et al. (“*MacLean*”) qualifies as prior art under pre-AIA 102(b). *See supra* § VII.B. U.S. Patent Application Publication No. 2003/0200144 A1 to Antonucci et al. (“*Antonucci*”) was published on October 23, 2003. Even if the '550 Patent is entitled to a priority date of May 25, 2006, *Antonucci* and *MacLean* qualify as prior art under pre-AIA 102(b).

*Antonucci* discloses “facilitating the substantially real-time transfer of loyalty points between accounts” such that “if a consumer desires to transfer **five hundred Hilton Reward points to a United Airlines frequent flyer account**, the conversion engine may determine that the five hundred Hilton Rewards points only translate into one hundred United Airlines frequent flyer points.” Ex. 1004, Abstract and ¶ [0157] (emphases added). The only element *Antonucci* does not explicitly disclose is compensating the commerce partner for providing entity independent funds, wherein the compensation is a multiple of a quantity of converted non-negotiable credits. As discussed in detail below, one of ordinary skill in the art would understand that *Antonucci* inherently discloses providing

compensation<sup>4</sup> to an entity as consideration for the entity taking on a liability by providing loyalty points for conversion. *See, e.g.*, Ex. 1004, ¶ [0157]; Ex. 1009, ¶¶ 73-75, 96-116.

To the extent that the Patent Trial and Appeal Board determines that such a recitation is not inherent in *Antonucci*, claims 1-3 and 5-7 of the '550 Patent are unpatentable over *Antonucci* in combination with *MacLean*. Ex. 1009, ¶¶ 96-116.

While *Antonucci* does not explicitly disclose compensating a commerce partner *MacLean* discloses compensating loyalty program administrators partner so that they are “willing to be paid to deposit points in their accounts.” Ex. 1005, ¶ [0062]; *supra* § VII.B.4. *MacLean* also disclose that this compensation is based on a “rate per point.” *Id.* For example, in *MacLean* “transaction center 902 levies in step 912 a transaction fee in the amount of \$8 that was set as a percentage of the cost of the withdrawal, leaving \$72 available to buy points from the second issuer 901.” Ex. 1005, ¶ [0064]. Thus, *MacLean* explicitly discloses providing \$72, at a rate per point of \$0.02, to second issuer 901 for providing 3600 loyalty points. *See Supra* § VII.B.4. Ex. 1009, ¶¶ 110, 111.

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<sup>4</sup> Petitioners do not contend that *Antonucci* inherently discloses that the compensation “is a multiple of a quantity of converted non-negotiable credits.” Such a recitation is disclosed in view of a combination of *Antonucci* and *MacLean*.



Such a combination of *Antonucci* and *MacLean* would have been obvious at least because *MacLean* is in the same field of endeavor as *Antonucci*, *i.e.*, providing a system for converting and/or transferring loyalty points. Ex. 1005 (Abstract); Ex. 1004 (Abstract); Ex. 1009, ¶¶ 112-114. Indeed, both *MacLean* and *Anotnucci* purport to increase the flexibility for consumers of loyalty programs by offering a system to exchange such points. *Id.* Moreover, compensating loyalty program administrators who are willing to increase their liability by offering points would have been predictable and would have not resulted in any unexpected results. This is at least because without receiving compensation a particular loyalty program administrator would be unwilling to increase its liability by offering points for a conversion and/or exchange. Ex. 1009, ¶ 105, 106. Thus, because compensating the commerce partner was well-known, predictable, and provided motivation to encourage participation in the conversion by accounting for the additional liability, it would have been obvious to a person of ordinary skill in the art at the time of the invention to add this feature. Ex. 1009, ¶¶ 112-114.

Accordingly, claims 1-3 and 5-7 of the '550 Patent are also unpatentable over *Antonucci* in combination with *MacLean*.

**1. *Antonucci* Discloses Converting Non-negotiable Credits to Entity Independent Funds, Wherein the Non-negotiable Credits And Entity Independent Funds Are Loyalty Points of Different Loyalty Programs**

*Antonucci* relates to “facilitating the substantially real-time transfer of loyalty points between accounts. The method and system include receiving a transfer request (*e.g.*, consumer request, triggering event, etc.) for a transfer of a certain number of loyalty points . . . , analyzing the type/level of consumer and type/level of points to be involved in the transfer . . . , using a conversion engine to convert the point value to an appropriate point value in the transferee account and increasing the point balance in the transferee account.” Ex. 1004 at Abstract. Thus, *Antonucci* discloses a system which allows a user to convert loyalty points of a first loyalty program to loyalty points of a second loyalty program. *Id.* and Ex. 1009, ¶¶ 96-98

**2. *Antonucci* Discloses Converting Non-negotiable Credits to Entity Independent Funds in Accordance with a Fixed Credits-To-Fund Conversion Ratio**

*Antonucci* discloses “determining if any **rules** exist for restricting or limiting the transfer of points, using a **conversion engine** to **convert the point value to an appropriate point value** in the transferee account, deducting the requested loyalty points from the transferor account, and increasing the point balance in the transferee account.” Ex. 1004, ¶ [0153] (emphases added). The rules are implemented by an online central rewards mechanism that “may include . . .

reward points information, available awards, information regarding **points ratios** and points redemption, and/or the like.” *Id.*, ¶ [0098] (emphasis added). For example, *Antonucci* discloses converting Hilton Reward points to United Airlines based on a 5:1 ratio. *Id.*, ¶ [0157]; Ex. 1009, ¶¶ 98, 99.

**3. *Antonucci* Discloses a Commerce Partner That Does Not Accept Non-negotiable Credits in the Absence of Being Converted, And Accepts Entity Independent Funds to Provide Commerce Partner Goods And Commerce Partner Services After The Conversion**

*Antonucci* discloses a system that includes a conversion engine such that “if a consumer desires to transfer five hundred Hilton Reward points to a United Airlines frequent flyer account.” Ex. 1004, ¶ [0157]. Once the Hilton Rewards points are converted to United Airlines frequent flyer miles, the frequent flier miles can be used to purchase an airline ticket from United Airlines. *Id.*, ¶ [0151]. *Antonucci* offers the conversion engine because without the conversion loyalty points of one entity (*e.g.*, Hilton) are not accepted by another entity (*e.g.*, United) for a sale of goods or services (*e.g.*, United Airline ticket). Ex. 1009, ¶¶ 99, 100.

**4. *Antonucci* Inherently and/or in view *MacLean* Discloses Wherein The Commerce Partner is Compensated for Providing The Entity Independent Funds to The Consumer**

“A prior art reference may anticipate without disclosing a feature of the claimed invention if that missing characteristic is necessarily present, or inherent, in the single anticipating reference.” *Schering Corp. v. Geneva Pharms., Inc.*, 339 F.3d 1373, 1377 (Fed. Cir. 2003). While *Antonucci* does not explicitly disclose compensating a commerce partner for providing entity independent funds as part of a conversion, one of ordinary skill in the art would understand that compensating a commerce partner is necessarily present in *Antonucci*. Ex. 1009, ¶¶ 104-106.

For example, *Antonucci* discloses allowing a consumer to convert “five hundred Hilton Reward points to a United Airlines frequent flyer account.” Ex. 1004, ¶ [0157]. In *Antonucci*, loyalty system administrators (*e.g.* Hilton and United) enter into an agreement with “certain rules or criteria” that allows users to convert Hilton Reward points to a United Airlines frequent flyer account. *See e.g.*, Ex. 1004, ¶ [0160] (“[t]he consumer, loyalty system and/or any other third party may also establish certain rules or criteria for determining which consumers or loyalty point accounts should participate in the transfer of points, the portion of points that are transferred, and which loyalty accounts should be credited.”)

One of ordinary skill in the art would understand that loyalty points are a liability for the entity administering the loyalty program. Ex. 1005, ¶ [0062] (“withdrawal of points from that LP’s account represent a real reduction in liability . . . the deposit of points into an LP’s account represents an increase in the

liability”); Ex. 1009, ¶¶ 104-106. Thus, by providing frequent flyer miles for conversion from Hilton Reward points in *Antonucci*, United Airlines is necessarily increasing its liability and Hilton is decreasing its liability. *Id.* However, in order to be willing to take on such a liability, a profit-making organization, such as United, would necessarily require compensation to be provided to account for the increase in liability. Ex. 1009, ¶¶ 104-106. Moreover, Hilton would be willing to provide compensation in view of a decrease in its liability. *Id.*

Thus, one of ordinary skill in the art would understand that by disclosing a conversion between Hilton reward points and United Airlines frequent flyer miles, *Antonucci* necessarily discloses providing compensation to a commerce partner for taking on additional liability by providing entity independent funds. *Id.*

To the extent that the Patent Trial and Appeal Board determines that such a recitation is not inherent in *Antonucci*, claims 1-3 and 5-7 of the '550 Patent are unpatentable over *Antonucci* in combination with *MacLean*.

**5. *Antonucci* Discloses A Computer Effectuating Changes, Serving One or More Web Pages Rendered as A Graphical User Interface and Updating Said Graphical User Interface in Response to Received Selection of Conversion Option**

*Antonucci* discloses that “some or all participants may have access to a computing unit in the form of a personal computer, although other types of computing units may be used, including laptops, notebooks, handheld computers, set-top boxes, kiosk terminals, and the like. . . . other participants may have

computing systems which may be implemented in the form of a computer-server, a PC server, a networked set of computers, or any other suitable implementations which are known in the art or may hereafter be devised.” Ex. 1004, ¶ [0031]; Ex. 1009, ¶¶ 107-109. “[T]he system may allow a consumer to enter a webpage or call a customer service representative to request that the consumer's own account be flagged such that the system will transfer any requested number of loyalty points to a second loyalty account upon a certain condition related to setting the flag.” Ex. 1004, ¶ [0160]. Each of the disclosures above, *supra* sections VII.C.1-4, thus, also can be effectuated with a computer serving one or more Web pages and rendered as a graphical user interface. *See, e.g., id.*, Figs. 1, 3, 4, 9; Ex. 1009, ¶¶ 107-109.

#### 6. The Combination of *Antonucci* and *MacLean* Would Have Been Obvious

*Antonucci* discloses “facilitating the substantially real-time transfer of loyalty points between accounts” such that “if a consumer desires to transfer **five hundred Hilton Reward points to a United Airlines frequent flyer account**, the conversion engine may determine that the five hundred Hilton Rewards points only translate into one hundred United Airlines frequent flyer points.” Ex. 1004, Abstract and ¶ [0157] (emphases added). *Antonucci* does not explicitly disclose compensating the commerce partner based on a multiple of a quantity of converted non-negotiable credit. However, as discussed in detail above, *see supra* § VII.C.4., one of ordinary skill in the art would understand that *Antonucci* inherently

discloses providing compensation to an entity as consideration for the entity taking on a liability by providing loyalty points for conversion. *See, e.g.*, Ex. 1005, ¶ [0157]; Ex. 1009, ¶¶ 104-106. To the extent that the Patent Trial and Appeal Board determines that such a recitation is not inherent in *Antonucci*, claims 1-3 and 5-7 of the '550 Patent are unpatentable over *Antonucci* in combination with *MacLean*.

While *Antonucci* does not explicitly disclose compensating a commerce partner and compensating based on a multiple of quantity of converted non-negotiable credit, *MacLean* discloses compensating loyalty program administrators partner based on a rate per point so that they are “willing to be paid to deposit points in their accounts.” Ex. 1005, ¶ [0062]; *supra* § VII.B.4. For example, in *MacLean* “[t]he transaction center 902 levies in step 912 a transaction fee in the amount of \$8 that was set as a percentage of the cost of the withdrawal, leaving \$72 (913) available to buy points from the second issuer 901.” Ex. 1005, ¶ [0064]; *see also id.*, ¶ [0067] and Fig. 9. Thus, *MacLean* explicitly discloses providing \$72, at a rate per point of \$0.02, to second issuer 901 for providing 36,000 loyalty points.

Moreover, the combination of *Antonucci* and *MacLean* would have been obvious at least because *MacLean* is in the same field of endeavor as *Antonucci*, *i.e.*, providing a system for converting and/or transferring loyalty points. Ex. 1005 (Abstract); Ex. 1004 (Abstract); Ex. 1009, ¶¶ 111-113. Indeed, both *MacLean* and

*Antonucci* purport to increase the flexibility for consumers of loyalty programs by offering a system to exchange such points. *Id.* For example, in *Antonucci* “five hundred Hilton Reward points” may be converted to one hundred United Airlines frequent flyer miles resulting in United Airlines. Ex. 1004, ¶ [0157]. As a result of this conversion United Airlines will acquire a liability proportional to one hundred United Airlines frequent flyer miles. Thus, one of ordinary skill in the art would understand that it would be obvious in *Antonucci* to compensate United Airlines proportional to the liability they acquired and this can be accomplished by calculating compensation based on a “rate per point” as disclosed in *MacLean*. Ex. 1009, ¶¶ 73-75 and 96-116.

Moreover, compensating loyalty program administrators who are willing to increase their liability by offering points would have been predictable and would have not resulted in any unexpected results. Without receiving compensation a particular loyalty program administrator would be unwilling to increase its liability by offering points for a conversion and/or exchange. Ex. 1009, ¶¶ 104-106. Thus, because compensating the commerce partner was well-known, predictable, and provided advantages, it would have been obvious to a person of ordinary skill in the art at the time of the invention to add this feature. Ex. 1009, ¶¶ 111-113.



## 7. Claim Chart For Claims 1-3 and 5-7 And *Antonucci* And *MacLean*

A claim chart disclosing each and every element of claims 1-3 and 5-7 of the '550 Patent as unpatentable over *Antonucci* in combination with *MacLean* is included below.

Claims of the '550 Patent	Exemplary Disclosure of <i>Antonucci</i> and <i>MacLean</i>
<p>[1 A]</p> <p>A method comprising:</p> <p>a computer serving a set of one or more Web pages for a loyalty program of an entity to one or more remotely located client machines, wherein the Web pages are able to be rendered within a client-side browser as a graphical user interface on the one or more client machines, wherein upon being rendered within the client-side browser said graphical user interface shows a quantity of non-negotiable credits, wherein said non-negotiable credits are loyalty points of the loyalty program possessed by a member,</p>	<p>“In one embodiment, the system includes <b>any hardware and/or software</b> discussed herein or known in the art suitably configured for receiving a transfer request (e.g., consumer request, triggering event, etc) for a transfer of a any portion of loyalty points, accessing and analyzing the total number of loyalty points in the transferor account to determine if a sufficient number of points exist . . . , using a conversion engine to convert the point value to an appropriate point value in the transferee account, deducting the requested loyalty points from the transferor account, and increasing the point balance in the transferee account.” Ex. 1004, ¶ [0153] (emphases added).</p> <p>“For example, some or all participants may have access to a <b>computing unit</b> in the form of a <b>personal computer</b>, although other types of computing units may be used, including laptops, notebooks, handheld computers, set-top boxes, kiosk terminals, and the like.” <i>Id.</i>, ¶ [0031] (emphases added).</p> <p>“Moreover, the system may allow a consumer to <b>enter a webpage</b> or call a customer service representative to request that the consumer's own account be flagged such that the system will transfer any requested number of loyalty points to a second loyalty account upon a certain condition related to</p>

Claims of the '550 Patent	Exemplary Disclosure of <i>Antonucci and MacLean</i>
	<p>setting the flag.” <i>Id.</i>, ¶ [0160] (emphases added).</p> <p>“The system administrator maintains an account for each participating consumer and apprises the consumer of the points totals and account activity. The consumer may <b>review the total number of points in the account either online</b> or off-line, such as through a periodic statement sent by the system administrator or through the use of a communications network, such as the Internet, for example.” <i>Id.</i>, ¶ [0071] (emphases added).</p> <p>“For example, if a consumer desires to transfer five hundred Hilton Reward points to a United Airlines frequent flyer account, the conversion engine may determine that the five hundred Hilton Rewards points only translate into one hundred United Airlines frequent flyer points. As such, the system would only increase the United Airlines frequent flyer account by one hundred points.” Ex. 1004, ¶ [0157]; <i>see also id.</i> at Abstract; Ex. 1009, ¶¶ 73-75 and 96-116.</p>
<p>[1 B]</p> <p>wherein upon being rendered within the client-side browser the graphical user interface comprises a conversion option to convert at least a subset of the shown non-negotiable credits into a quantity entity independent funds,</p>	<p>“Moreover, the system may allow a consumer to <b>enter a webpage</b> or call a customer service representative <b>to request</b> that the consumer's own account be flagged such that the system will transfer any requested number of loyalty points to a second loyalty account upon a certain condition related to setting the flag.” Ex. 1004, ¶ [0160] (emphases added).</p> <p>“The transfer of any portion of loyalty points in a consumer account may be initiated upon a triggering event such as, for example, a request by the transferor, a request by a transferee, a request by a loyalty system host, a request by a third party, a transfer on a certain date or time, a percentage of</p>

Claims of the '550 Patent	Exemplary Disclosure of <i>Antonucci</i> and <i>MacLean</i>
	<p>points transferred during certain time periods and/or an automatic transfer upon a preestablished condition or data point.” <i>Id.</i>, ¶ [0158].</p> <p>“In one embodiment, the system includes any hardware and/or software discussed herein or known in the art suitably configured for receiving a transfer request (e.g., consumer request, triggering event, etc) for a transfer of a any portion of loyalty points, accessing and analyzing the total number of loyalty points in the transferor account to determine if a sufficient number of points exist . . . , using a conversion engine to convert the point value to an appropriate point value in the transferee account.” <i>Id.</i>, ¶ [0153]; Ex. 1009, ¶¶ 73-75 and 96-116.</p>
[1 C] wherein said entity independent funds are different loyalty points of a different loyalty program of a commerce partner,	<p>“For example, if a consumer desires to transfer five hundred Hilton Reward points to a United Airlines frequent flyer account, the conversion engine may determine that the five hundred Hilton Rewards points only translate into one hundred United Airlines frequent flyer points.” Ex. 1004, ¶ [0157]; Ex. 1009, ¶¶ 73-75 and 96-116.</p>
[1 D]  wherein said entity independent funds are possessed by the member,	<p>“In one embodiment, the system includes any hardware and/or software discussed herein or known in the art suitably configured for receiving a transfer request (e.g., consumer request, triggering event, etc) for a transfer of a any portion of loyalty points, accessing and analyzing the <b>total number of loyalty points in the transferor account</b> to determine if a sufficient number of points exist, analyzing the type/level of consumer and type/level of points to be involved in the transfer.” Ex. 1004, ¶ [0153] (emphases added); Ex. 1009, ¶¶ 73-75 and 96-116.</p>

Claims of the '550 Patent	Exemplary Disclosure of <i>Antonucci</i> and <i>MacLean</i>
<p>[1 E]</p> <p>wherein an agreement exists between the entity and the commerce partner, wherein the agreement permits members to convert the non-negotiable credits to the entity independent funds in accordance with a fixed credits-to-funds conversion ratio,</p>	<p><i>Antonucci</i> discloses allowing a consumer to convert “five hundred Hilton Reward points to a United Airlines frequent flyer account.” Ex. 1004, ¶ [0157].</p> <p>“The consumer, loyalty system and/or any other third party may also establish <b>certain rules or criteria</b> for determining which consumers or loyalty point accounts should participate in the transfer of points, the portion of points that are transferred, and which loyalty accounts should be credited with the transferred points. The rules may include a transfer of points upon, for example, consumer accounts having loyalty point balances which are below a certain threshold amount, consumer accounts which have remained inactive for a certain time period or a request by the consumer or a third party.” <i>See e.g.</i>, Ex. 1004, ¶ [0160] (emphasis added).</p> <p>“The consumer, loyalty system and/or any other third party may also establish certain rules or criteria for determining which consumers or loyalty point accounts should participate in the transfer of points, the portion of points that are transferred, and which loyalty accounts should be credited with the transferred points. The rules may include a transfer of points upon, for example, consumer accounts having loyalty point balances which are below a certain threshold amount, consumer accounts which have remained inactive for a certain time period or a request by the consumer or a third party.” Ex. 1004, ¶ [0160].</p> <p>Rules implemented by an online central rewards mechanism “may include . . . reward points information, available awards, information regarding <b>points ratios</b> and points redemption, and/or the like.” <i>Id.</i>, ¶ [0098]. <i>Antonucci</i> discloses converting Hilton Reward points to United Airlines based on a</p>

Claims of the '550 Patent	Exemplary Disclosure of <i>Antonucci</i> and <i>MacLean</i>
	5:1 ratio. <i>Id.</i> , ¶ [0157] (emphasis added); Ex. 1009, ¶¶ 73-75 and 96-116
<p>[1 F]</p> <p>wherein the agreement specifies that the entity is to compensate the commerce partner in an agreed upon amount of cash or credit for conversions of non-negotiable credits to entity independent funds,</p>	<p>“For example, if a consumer desires to transfer five hundred Hilton Reward points to a United Airlines frequent flyer account, the conversion engine may determine that the five hundred Hilton Rewards points only translate into one hundred United Airlines frequent flyer points. As such, the system would only increase the United Airlines frequent flyer account by one hundred points.” Ex. 1004, ¶ [0157]; <i>see also</i> Ex. 1004, Abstract.</p> <p>The conversion engine is used for “deducting the requested loyalty points from the transferor account, and increase[es] the point balance in the transferee account.” Ex. 1004, ¶ [0153].</p> <p><i>See supra</i> VII.C.4.</p> <p><i>MacLean</i> further discloses compensating loyalty program administrators partner based on a rate per point so that they are “willing to be paid to deposit points in their accounts.” Ex. 1005, ¶ [0062]; <i>see also</i> [0064], [0067], and Fig. 9; Ex. 1009, ¶¶ 73-75 and 96-116.</p>
<p>[1 G]</p> <p>wherein said agreed upon amount is a multiple of a quantity of converted non-negotiable credits,</p>	<p><i>MacLean</i> is directed to a system of converting and/or transferring loyalty points. Ex 1005 (Abstract).</p> <p>“The first issuer 900 has examined its liability/points and set its point withdrawal rate at <b>\$0.008 per point</b>. This means that for a withdrawal of 10,000 points from the customer's account with the first</p>

Claims of the '550 Patent	Exemplary Disclosure of <i>Antonucci and MacLean</i>
	<p>issuer 900 will pay \$80 in step 911 to the transaction center 902 . . . In step 915, the transaction center 902 uses the available \$72 to deposit 3,600 points in the customers account in the second issuer 901. In this example, the customer sees an effective points exchange rate of 3,600:10,000 or 0.36 between the first issuer 900 and the second issuer 901.” Ex. 1005, ¶ [0064] (emphases added); <i>see also</i> Ex. 1009, ¶¶ 73-75 and 96-116.</p> <p><i>See supra</i> VII.C.6.</p>
[1 H] wherein the entity independent funds are redeemable per the different loyalty program for commerce partner goods or for commerce partner services, wherein the commerce partner is not said entity,	<p>“For example, if a consumer desires to transfer five hundred Hilton Reward points to a United Airlines frequent flyer account, the conversion engine may determine that the five hundred Hilton Rewards points only translate into one hundred United Airlines frequent flyer points. As such, the system would only increase the United Airlines frequent flyer account by one hundred points.” Ex. 1004, ¶ [0157]; Ex. 1009, ¶¶ 73-75 and 96-116.</p>
[1 I] wherein in absence of being converted the non-negotiable credits are not accepted as payment for commerce partner goods or for commerce partner services;	<p>“If a consumer desires to transfer five hundred Hilton Reward points to a United Airlines frequent flyer account,” such that the frequent flier miles can be used to purchase an airline ticket from United Airlines. Ex. 1004, ¶¶ [0151] and [0157]; <i>see also</i> Ex. 1009, ¶¶ 73-75 and 96-116.</p>
[1 J] the computer responsive to receiving a message indicating a selection of the conversion option, processing the selection to effectuate changes in the served set of Web pages; and	<p>“In one embodiment, the system includes <b>any hardware and/or software</b> discussed herein or known in the art suitably configured for <b>receiving a transfer request</b> (e.g., <b>consumer request</b>, triggering event, etc) for a transfer of a any portion of loyalty points, accessing and analyzing the total number of loyalty points in the transferor account to determine if a sufficient number of points exist . . . ,</p>

Claims of the '550 Patent	Exemplary Disclosure of <i>Antonucci</i> and <i>MacLean</i>
	<p>using a conversion engine to convert the point value to an appropriate point value in the transferee account, deducting the requested loyalty points from the transferor account, and increasing the point balance in the transferee account.” Ex. 1004, ¶ [0153] (emphases added).</p> <p>“The consumer may review the total number of points in the account either <b>online</b> or off-line, such as through a periodic statement sent by the system administrator or <b>through the use of a communications network, such as the Internet</b>, for example.” <i>Id.</i>, ¶ [0071] (emphases added).</p> <p>“Each participant or user of the system of the present invention, including purchasers, retailers, manufacturers, and third-party providers, may be equipped with a suitable computing system to facilitate online communications.” <i>Id.</i>, ¶ [0031].</p> <p>Figs 6A-6I of <i>MacLean</i> show web pages 600, 610, 620, 630, 640, 650, 660, 670, and 680 with changes and updates. <i>See, e.g.</i>, Ex. 1005, ¶¶ [0045], [0046], Figs. 6A-6I; Ex. 1009, ¶¶ 73-75 and 96-116.</p>
<p>[1 K] responsive to the processing, the computer serving one or more Web pages or Web page updates that include the effectuated changes to the one or more remotely located client machines,</p>	<p>“Each participant or user of the system of the present invention, including purchasers, retailers, manufacturers, and third-party providers, may be equipped with a suitable computing system to facilitate online communications.” Ex. 1004, ¶ [0031].</p> <p>“In one embodiment, the system includes any hardware and/or software discussed herein or known in the art suitably configured for receiving a transfer request (e.g., consumer request, triggering event, etc) for a transfer of any portion of loyalty points . . . , using a conversion engine to convert the point value</p>



Claims of the '550 Patent	Exemplary Disclosure of <i>Antonucci</i> and <i>MacLean</i>
	<p>to an appropriate point value in the transferee account, <b>deducting the requested loyalty points from the transferor account, and increasing the point balance in the transferee account.</b>" <i>Id.</i>, ¶ [0153] (emphases added).</p> <p>"While the invention will be discussed in terms of a general transfer of loyalty points, one skilled in the art will appreciate that the transfer may include a deduction from a first account and a crediting of a second account. Moreover, the transfer may involve any portion of the points transferred in real-time, certain points transferred in a batch transfer, certain points transferred upon a triggering event." <i>Id.</i>, ¶ [0152].</p> <p>Figs 6A-6I of <i>MacLean</i> show web pages 600, 610, 620, 630, 640, 650, 660, 670, and 680 with changes and updates. <i>See, e.g.</i>, Ex. 1005, ¶¶ [0045], [0046], Figs. 6A-6I; Ex. 1009, ¶¶ 73-75 and 96-116.</p>
<p>[1 L]</p> <p>wherein upon being rendered within the client-side browser the graphical user interface is updated with the effectuated changes,</p>	<p>"The consumer may review the total number of points in the account either <b>online</b> or off-line, such as . . . through the use of a communications network, such as the Internet, for example." Ex. 1004, ¶ [0071] (emphasis added).</p> <p>"In one embodiment, the system includes any hardware and/or software discussed herein or known in the art suitably configured for receiving a transfer request (e.g., consumer request, triggering event, etc) for a transfer of any portion of loyalty points, accessing and analyzing the total number of loyalty points in the transferor account to determine if a sufficient number of points exist . . . , using a conversion engine to convert the point value to an appropriate point value in the transferee account, <b>deducting the requested loyalty points from the</b></p>



Claims of the '550 Patent	Exemplary Disclosure of <i>Antonucci</i> and <i>MacLean</i>
	<p><b>transferor account, and increasing the point balance in the transferee account.”</b> <i>Id.</i>, at¶ [0153] (emphases added).</p> <p>Figs 6A-6I of <i>MacLean</i> show web pages 600, 610, 620, 630, 640, 650, 660, 670, and 680 with changes and updates. <i>See, e.g.</i>, Ex. 1005, ¶¶ [0045], [0046], Figs. 6A-6I; Ex. 1009, ¶¶ 73-75 and 96-116.</p> <p>“The customer carries out point exchanges by use of its customer terminal 110, which includes a customer computer 201 and a web browser 202. The customer “surfs” to a web site provided by the transaction center 120. Upon prompting, the customer enters the following data into the website: 1) information about itself and 2) data identifying each of the issuer LPs from which points are to be withdrawn, each of the issuer LPs to which points are to be deposited, and the number of points to be withdrawn from each of the withdrawing LPs. This data is transmitted over the Internet 205 to the transaction center 120, where the transmitted data is processed.” Ex. 1005, ¶ [0045]; <i>see also</i> [0052], [0053], Figs. 6A-6I; Ex. 1009, ¶¶ 73-75 and 96-116.</p>
<p>[1 M]</p> <p>wherein the updated graphical user interface shows a reduced quantity of non-negotiable credits possessed by the member in the loyalty program, said reduced quantity resulting at least in part from the subset of non-negotiable credits being converted into the quantity of entity independent funds in</p>	<p>“The system administrator maintains an account for each participating consumer and apprises the consumer of the points totals and account activity. The consumer may review the total number of points in the account either <b>online</b> or off-line, such as . . . through the use of a communications network, such as the Internet, for example.” Ex. 1004, ¶ [0071] (emphasis added).</p> <p>“In one embodiment, the system includes any hardware and/or software discussed herein or known in the art suitably configured for receiving a transfer request (e.g., consumer request, triggering event, etc)</p>

Claims of the '550 Patent	Exemplary Disclosure of <i>Antonucci</i> and <i>MacLean</i>
<p>accordance with the fixed credits-to-funds conversion ratio.</p>	<p>for a transfer of any portion of loyalty points, accessing and analyzing the total number of loyalty points in the transferor account to determine if a sufficient number of points exist . . . , using a conversion engine to convert the point value to an appropriate point value in the transferee account, deducting the requested loyalty points from the transferor account, and increasing the point balance in the transferee account.” <i>Id.</i>, ¶ [0153].</p> <p>Rules implemented by an online central rewards mechanism “may include . . . reward points information, available awards, information regarding <b>points ratios</b> and points redemption, and/or the like.” <i>Id.</i>, ¶ [0098]. <i>Antonucci</i> discloses converting Hilton Reward points to United Airlines based on a 5:1 ratio. <i>Id.</i>, ¶ [0157].</p> <p>Figs 6A-6I of <i>MacLean</i> show web pages 600, 610, 620, 630, 640, 650, 660, 670, and 680 with changes and updates. <i>See, e.g.</i>, Ex. 1005, ¶¶ [0045], [0046], Figs. 6A-6I; Ex. 1009, ¶¶ 73-75 and 96-116.</p> <p>“The customer carries out point exchanges by use of its customer terminal 110, which includes a customer computer 201 and a web browser 202. The customer “surfs” to a web site provided by the transaction center 120. Upon prompting, the customer enters the following data into the website: 1) information about itself and 2) data identifying each of the issuer LPs from which points are to be withdrawn, each of the issuer LPs to which points are to be deposited, and the number of points to be withdrawn from each of the withdrawing LPs. This data is transmitted over the Internet 205 to the transaction center 120, where the transmitted data is processed.” Ex. 1005, ¶ [0045]; <i>see also</i> [0052], [0053], Figs. 6A-6I; Ex. 1009, ¶¶ 73-75 and 96-116.</p>

Claims of the '550 Patent	Exemplary Disclosure of <i>Antonucci</i> and <i>MacLean</i>
Claim 2	
<p>2. The method of claim 1, wherein the updated graphical user interface shows a quantity of entity independent funds resulting from converting the subset of non-negotiable credits into the quantity of entity independent funds in accordance with the fixed credits-to-funds conversion ratio.</p>	<p>“In one embodiment, the system includes any hardware and/or software discussed herein or known in the art suitably configured for receiving a transfer request (e.g., consumer request, triggering event, etc) for a transfer of <b>any portion of loyalty points</b>, accessing and analyzing the total number of loyalty points in the transferor account to determine if a sufficient number of points exist . . . , deducting the requested loyalty points from the transferor account, and increasing the point balance in the transferee account.” Ex. 1004, ¶ [0153].</p> <p>“The system administrator maintains an account for each participating consumer and apprises the consumer of the points totals and account activity. The consumer may review the total number of points in the account either <b>online</b> or off-line, such as through a periodic statement sent by the system administrator or through the use of a communications network, such as the Internet, for example.” Ex. 1004, ¶ [0071] (emphases added).</p> <p><i>See also MacLean</i>, Ex. 1005, Figs. 6A-6I and Ex. 1009, ¶¶ 73-75 and 96-116.</p>
Claim 3	
<p>3. The method of claim 1, wherein the updated graphical user interface shows a quantity of available entity independent funds possessed by the member for use as payment for the goods or services provided by the commerce partner, said quantity of available entity</p>	<p>“The consumer may <b>review the total number of points in the account either online</b> or off-line, such as through a periodic statement sent by the system administrator or through the use of a communications network, such as the Internet, for example.” Ex. 1004, ¶ [0071] (emphases added). As explained in <i>Antonucci</i>, “if a consumer desires to transfer five hundred Hilton Reward points to a United Airlines frequent flyer account.” <i>Id.</i>, ¶ [0157]. Once the Hilton Rewards points are converted to</p>

Claims of the '550 Patent	Exemplary Disclosure of <i>Antonucci</i> and <i>MacLean</i>
independent funds including an amount resulting from the conversion operation.	United Airlines frequent flyer miles, the frequent flier miles can be used to purchase an airline ticket from United Airlines. <i>Id.</i> , at¶ [0151].  <i>See also MacLean</i> , Ex. 1005, Figs. 6A-6I; Ex. 1009, ¶¶ 73-75 and 96-116.
Claim 5	
5. The method of claim 1, wherein the entity imposes a lower threshold on the quantity of non-negotiable credits able to be converted via conversion option the Web pages, wherein the lower threshold is greater than one hundred non-negotiable credits.	“The consumer, loyalty system and/or any other third party may also establish certain rules or criteria for determining which consumers or loyalty point accounts should participate in the transfer of points, the portion of points that are transferred, and which loyalty accounts should be credited with the transferred points. The rules may include a transfer of points upon, for example, consumer accounts having loyalty point balances which are below a certain <b>threshold amount</b> , consumer accounts which have remained inactive for a certain time period or a request by the consumer or a third party. For example, the system may store a rule that flags any account that includes less than <b>500 points</b> .” Ex. 1004, ¶ [0160] (emphasis added); Ex. 1009, ¶¶ 73-75 and 96-116.
Claim 6	
6. The method of claim 1, wherein the loyalty program of the entity is an airline, hotel, or credit card loyalty program, wherein the different loyalty program of the commerce partner is an airline, hotel, or credit card loyalty program.	“In accordance with the present invention, loyalty points associated with a certain loyalty system may be transferred to other loyalty point accounts within the same loyalty system or to a loyalty point account in any other loyalty point system. For example, Hilton Reward points may be transferred to a United Airlines frequent flyer account.” Ex. 1004, ¶ [0157]; Ex. 1009, ¶¶ 73-75 and 96-116.
Claim 7	

Claims of the '550 Patent	Exemplary Disclosure of <i>Antonucci</i> and <i>MacLean</i>
<p>7. The method of claim 1, wherein the computer serves the set of one or more Web pages, processes the selection, and serves the one or more Web pages or Web page updates that include the effectuated changes within a single user-interactive Web session.</p>	<p>“In one embodiment, the system includes any hardware and/or software discussed herein or known in the art suitably configured for receiving a transfer request (e.g., consumer request, triggering event, etc) for a transfer of any portion of loyalty points, accessing and analyzing the total number of loyalty points in the transferor account to determine if a sufficient number of points exist . . . , using a conversion engine to convert the point value to an appropriate point value in the transferee account, <b>deducting the requested loyalty points from the transferor account, and increasing the point balance in the transferee account.</b>” Ex. 1004, ¶ [0153] (emphases added).</p> <p>“While the invention will be discussed in terms of a general transfer of loyalty points, one skilled in the art will appreciate that the transfer may include a deduction from a first account and a crediting of a second account. Moreover, <b>the transfer may involve any portion of the points transferred in real-time</b>, certain points transferred in a batch transfer, certain points transferred upon a triggering event.” <i>Id.</i>, ¶ [0152] (emphases added).</p> <p><i>See also MacLean</i>, Ex. 1005, Figs. 6A-6I; Ex. 1009, ¶¶ 73-75 and 96-116.</p>

**D. Ground No. 4: Claims 1-3 And 5-7 Are Invalid Under 35 U.S.C. §112(a), (known as 112, First Paragraph prior to the AIA)**

Written description requires either express or inherent disclosure of every claimed feature; it is insufficient to claim an obvious variation of disclosed subject matter. To satisfy the written description requirement, the specification of a patent must reasonably convey to those of skill in the art that, as of the filing date, the

inventor had possession of the claimed subject matter. *Ariad Pharms., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010) (en banc). “One shows that one is ‘in possession’ of *the invention* by describing *the invention*, with all its claimed limitations, not that which makes it obvious.” *Lockwood v. Am. Airlines, Inc.*, 107 F.3d 1565, 1571 (Fed. Cir. 1997). “While the meaning of terms, phrases, or diagrams in a disclosure is to be explained or interpreted from the vantage point of one skilled in the art, all the limitations must appear in the specification. The question is not whether a claimed invention is an obvious variant of that which is disclosed in the specification.” *PowerOasis, Inc. v. T-Mobile USA, Inc.*, 522 F.3d 1299, 1306 (Fed. Cir. 2008).

**1. The '550 Patent Specification Fails to Describe Converting Non-Negotiable Credits Into Entity Independent Funds “Wherein said Entity Independent Funds Are Different Loyalty Points of A Different Loyalty Program of A Commerce Partner”**

The specification of the '550 Patent lacks any disclosure that would have indicated to one of ordinary skill in the art that the patentee possessed converting non-negotiable credits into entity independent funds “wherein said entity independent funds are different loyalty points of a different loyalty program of a commerce partner,” as recited by independent claim 1. Ex. 1001 at 6:43-7:9. Accordingly, claims 1-3 and 5-7 are invalid under § 112, first paragraph as lacking written description support. Ex. 1009, ¶¶ 122-131.

Independent claims 31 and 39 expressly require a conversion of non-negotiable funds to a currency that is specific to a particular entity, *i.e.*, the currency is independent funds, “wherein the entity independent funds are loyalty points of a loyalty program **of the commerce partner**.” There is no disclosure in the ’550 Patent of a “commerce partner” or a loyalty program of the commerce partner. The only conversion actually disclosed in the ’550 Patent, is the conversion of loyalty points into a negotiable fund. Ex. 1001 at 4:45-47; Ex. 1009, ¶¶ 122-131. The ’550 Patent specifically describes “non-negotiable credits” to be “frequent flier miles, consumer loyalty points, and entertainment credits.” Ex. 1001 at 1:40-44. Yet, the specification repeatedly discloses “entity independent funds” as monetary currency. Ex. 1001 at 2:63 to 3:8 (describing depositing the funds into an account of a “financial institution”), 4:45-47, 5:23-34, Fig. 2 and Fig. 3.

Further, the specification characterizes “non-negotiable credits” as inflexible because of (1) “the restriction on usage to goods and/or services of the entity”; (2) “redemption delay” such that “the consumer must wait for the entity to perform one ore more actions;” (3) “expir[ing] before a sufficient quantity is acquired;” and (4) “consumers often belong[ing] to multiple credit-earning programs that provide the consumers with multiple incompatible forms of non-negotiable credit.” *Id.* at 1:53 to 2:19. The specification further explains that “different programs, values, and rules can understandably confuse and frustrate consumers, who due to their



confusion often elect to avoid participating in an entity sponsored credit program.” *Id.* at 2:28-32. To overcome this rigidity of “non-negotiable credits” of a loyalty program that could not be negotiated for good or services from anyone other than the entity administering the loyalty program, the inventor of the ’550 Patent purported to invent a system that allowed consumers to convert these “non-negotiable credits” to “entity independent funds,” *i.e.*, monetary currency that is independent of any entity and can be used to purchase goods or services from any entity not just a commerce partner. *See, e.g., Id.* at 2:63 to 3-8, 4:45-48, Fig. 2; Ex. 1009, ¶¶ 122-131.

Yet, independent claim 1 requires a consumer to convert his/her non-negotiable loyalty points to currency of a commerce partner such that the consumer will face the same inflexibilities that are described in the ’550 Patent as causing consumers to be “confuse[d] and frustrate[d].” Ex. 1001 at 2:28-32. Thus, one of ordinary skill in the art would have recognized that the specification failed to convey possession of such a conversion. Ex. 1009, ¶¶ 122-131.

## **2. The ’550 Patent Specification Fails to Describe “Wherein The Agreement Specifies That The Entity is to Compensate The Commerce Partner”**

The specification of the ’550 Patent lacks any disclosure that would have indicated to one of ordinary skill in the art that the patentee possessed converting non-negotiable credits into entity independent funds “wherein the agreement



specifies that the entity is to compensate the commerce partner,” as recited by independent claim 1. Ex. 1001 at 6:43 to 7:9; Ex. 1009, ¶¶ 132-139. Accordingly, claim 1, and its dependent claims 2-3 and 5-7 are invalid under § 112, first paragraph as lacking written description support.

There is no written description in the specification of a “commerce partner” and/or a commerce partner being compensated for providing entity independent funds for a conversion. *Supra* at § VII.E.1; Ex. 1009, ¶¶ 132-139. The only disclosure of a “commerce partner” is in the Abstract of the Patent. The Abstract, however, still does not provide the required disclosure of a “commerce partner” being compensated. Accordingly, claims 1-3 and 5-7 are invalid under § 112, first paragraph as lacking written description.

### **3. The Abstract of the ’550 Patent Does Not Provide Sufficient Written Description**

Having no description of these recitations, the ’550 Patent is invalid under 112. Any effort from LCSC to save the patent because the Abstract of the ’550 Patent identifies the “commerce partner receiv[ing] at least a portion of the compensation” is not sufficient because “[t]o satisfy the written description requirement, a patent specification must describe the claimed invention in sufficient detail that one skilled in the art can reasonably conclude that the inventor had possession of the claimed invention. *See, e.g.*, MPEP § 2163 (citing *Moba, B.V. v. Diamond Automation, Inc.*, 325 F.3d 1306, 1319 (Fed. Cir. 2003)).

“However, a showing of possession alone does not cure the lack of a written description.” MPEP § 2163 (citing *Enzo Biochem, Inc. v. Gen-Probe, Inc.*, 323 F.3d 956, 969-70 (Fed. Cir. 2002)).

The Abstract of the '550 Patent merely mentions a commerce partner in the context of providing goods or services, but does not state that the commerce partner receives compensation for providing the entity independent funds. Further, there is no disclosure in the Abstract of a conversion from the currency of loyalty point of an entity to the currency of loyalty point of a commerce partner as required by the claims. Ex. 1009, ¶¶ 132-139. Such a cursory statement does not clearly convey that the inventor invented a system that allowed the claimed conversion. *See In re Barker*, 559 F.2d 588, 592 n.4 (C.C.P.A. 1977) (“[T]he ‘essential goal’ of the description of the invention requirement is to clearly convey the information that an applicant has invented the subject matter which is claimed.”). Moreover, such a cursory statement does not meet “implement[] the principle that a patent must describe the technology that is sought to be patented; the requirement serves both to satisfy the inventor’s obligation to disclose the technologic knowledge upon which the patent is based, and to demonstrate that the patentee was in possession of the invention that is claimed.” *See, e.g.*, MPEP § 2163 (citing *Capon v. Eshhar*, 418 F.3d 1349, 1357, (Fed. Cir. 2005)).

Thus, the Abstract of the '550 Patent does not provide sufficient written description and claims 1-3 and 5-7 are invalid under § 112, first paragraph as lacking written description. Ex. 1009, ¶¶ 132-139.

## VIII. CONCLUSION

With this Petition, Petitioner have established a reasonable likelihood that claims 1-3 and 5-7 of the '550 Patent are invalid under at least one or more of 35 U.S.C. §§ 101, 112, 102, and 103. Petitioners therefore respectfully request that a post-grant review of these claims be instituted, and that claims 1-3 and 5-7 be held unpatentable.

The required fees in the amount of \$30,000.00 were submitted on March 17, 2014. If there are any additional fees due in connection with the filing of this paper, please charge the required fees to our Deposit Account No. 130019.

Respectfully submitted,

Date: April 4, 2014

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**CERTIFICATION OF SERVICE (37 C.F.R. §§ 42.6(e), 42.105(a))**

The undersigned hereby certifies that the above-captioned “Corrected Petition for Covered Business Method Patent Review of U.S. Patent No. 8,511,550 Under 35 U.S.C. § 321 and § 18 of the Leahy-Smith America Invents Act,” including its supporting evidence (**CORRECTED EXHIBITS 1001-1017**), was served in its entirety on April 4, 2014, upon the attorneys of record for the patent at the following addresses via USPS Express Mail:

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### **ADDITIONAL SERVICE INFORMATION**

Further, the undersigned hereby certifies that a courtesy copy the above-captioned “Corrected Petition for Covered Business Method Patent Review of U.S. Patent No. 8,511,550 Under 35 U.S.C. § 321 and § 18 of the Leahy-Smith America Invents Act,” including its supporting evidence (**CORRECTED EXHIBITS 1001-1017**), was served in its entirety on April 4, 2014, upon the attorneys of record in related matters in Eastern District of Texas at the following email addresses via Electronic Mail:

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